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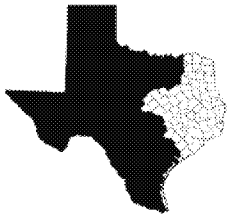

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August 15, 2022

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Re: **Sea Port Oil Terminal Deepwater Port Project (Docket No. MARAD 2019-2011)**
- Status of USEPA Section 404 Permit Review (SPOT Terminal, LLC Clean Water Act Section 404 and Rivers and Harbors Act Section 10 Permit Application, #SWG-2018-00751)
- Status of USEPA Review under Clean Air Act Section 309

Dear Mr. Gutierrez, Ms. Martinez, and Mr. Hayden,

The undersigned counsel seek information and your assistance concerning the U.S. Environmental Protection Agency's ("USEPA") review of the Sea Port Oil Terminal Deepwater Port Project (Docket No. MARAD 2019-2011) ("SPOT Project") regarding the status of agency's review of (1) SPOT Terminal, LLC's ("SPOT") Permit Application under Clean Water Act Section 404 and Rivers and Harbors Act Section 10 (#SWG-2018-00751) filed March 15, 2019[1] ("CWA Section 404 Review")

[1] *See* SPOT FEIS at 1-3.

and (2) the SPOT Project under Clean Air Act Section 309 ("CAA Section 309 Review"). The purpose of this letter is to provide information on the status of comments submitted on the SPOT Project that may be within the scope of your ongoing review and seek any information that you are able to share regarding the status of these twin USEPA reviews with respect to the SPOT Project.

SPOT seeks authorization to construct and operate a massive deepwater port ("DWP") terminal that includes modification or construction of two onshore terminals, construction of over 140 miles of onshore and offshore pipelines, and the installation of two buoys about 30 nautical miles off the coast of Brazoria County, Texas, capable of loading two Very Large Crude Carriers ("VLCCs") at a time. SPOT intends to transport and export massive quantities of crude oil (as much as 2 million barrels per day). The Final Environmental Impact Statement ("FEIS") for the application for the SPOT Project, issued by the U.S. Maritime Administration ("MARAD") and the United States Coast Guard ("USCG") (MARAD 2019-2011-5030), confirms that this proposed DWP terminal will exacerbate climate change and damage sensitive Texas ecosystems that are already overburdened by industrial activities.

We understand that while the U.S. Army Corps of Engineers ("USACE") administers the CWA Section 404 Permit Program, the Section 404 permit application is still subject to review by USEPA. We also understand that, pursuant to Section 309 of the Clean Air Act, the USEPA has the responsibility to review all draft environmental impact statements ("EIS") prepared by other agencies to ensure the adequacy of the information presented in the EIS and identify and recommend mitigation measures. The FEIS lists Mr. Gutierrez and Ms. Martinez as the reviewers for the USEPA of the related CWA Section 404 Permit and Mr. Hayden as the reviewer of the FEIS.[2] We are interested in the status of the agency's reviews under both statutes and request the agency consider the following information to ensure the Project complies with the law.

A. Status of the CWA Section 404 Review

In 2020, the undersigned groups and other organizations timely submitted comments to the USACE on the application by SPOT Terminal, LLC for a permit under Clean Water Act Section 404 and Rivers and Harbors Act Section 10 (#SWG-2018-00751). For convenience of reference, copies of the comments previously submitted to the USACE on the proposed DWP project proposed by SPOT are attached to this letter as Exhibit 1 (May 25, 2020 Comments by Citizens for Clean Air and Clean Water) and Exhibit 2 (March 20, 2020 Comments by Sierra Club, Texas Campaign for the Environment, Save RGV, Public Citizen, Ernest Lykissa, Ph.D., Center for Biological Diversity, Earthjustice, Turtle Island Restoration Network, Earthworks, 350 New Orleans, Healthy Gulf, Texas Conservation Partners LLC, Save Our Beach Association, and Patti Chemali) (collectively, hereinafter, "Commenters"). To date, the USACE has not provided any substantive response to either of these comments on the CWA 404 Permit for the SPOT Project. We are providing these previously submitted comments directly to you in hopes that the USEPA will consider these comments during its CWA Section 404 Review. We are particularly interested in sharing our concerns with you because the USACE has not responded to these comments after over two years.

As more fully explained in the enclosed comments, Commenters are concerned that under the governing statutes and regulations, the SPOT Project: (1) would contravene the specific requirements of the CWA and (2) would not serve the public interest. First, Commenters highlighted to the USACE all the reasons why the proposed application does not comply with Section 404(b)(1) guidelines:[3]

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[2] *See* SPOT FEIS at Appx D; FEIS at 1-29.

[3] Exhibit 1 at 7.

1. SPOT has not shown that its planned methods of construction are the least environmentally damaging;[4]

2. SPOT has the potential to jeopardize threatened and endangered species under the Endangered Species Act;[5]

3. SPOT must avoid destruction of wetlands to the extent practicable;[6]

4. The Project would cause or contribute to significant degradation of the Waters of the United States[7] because (a) the Project would both cross and be located near extremely sensitive habitat;[8] (b) the proposed crossing methods would damage wildlife;[9] and (c) SPOT has disregarded substantial risks of oil spills posed by the Project to waterways and wetlands;[10]

5. SPOT's compensatory mitigation is inadequate;[11]

6. The Project would cause or contribute to water quality degradation;[12] and

7. SPOT has not taken all appropriate steps to minimize potential adverse impacts of the Project.[13]

With respect to item #3 above, the FEIS acknowledges that the USACE must evaluate the compensatory mitigation requirements for wetland WB050, an estuarine emergent ("EEM") wetland, where the shoreline Mainline Valve would be placed and result in approximately 0.1 acre of permanent impacts to wetlands which are not currently included in SPOT's mitigation plan.[14]

Moreover, Commenters raised the concern that the SPOT Project was not in the public's interest[15] for the following reasons:

1. The Project would exacerbate the effects of climate change;[16]

2. It would heighten the risk of dangerous oil spills;[17]

3. Construction of the SPOT DWP and associated onshore components would have substantial negative impacts on wetlands and wildlife;[18] and

4. The Project would solely benefit the oil and gas industry while placing significant burdens on the environment, local communities and the public at large.[19]

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[4] Exhibit 1 at 8; Exhibit 2 at 13-14.
[5] Exhibit 1 at 8; Exhibit 2 at 15-16.
[6] Exhibit 1 at 9; Exhibit 2 at 16-17.
[7] Exhibit 1 at 19-22; Exhibit 2 at 17-18.
[8] Exhibit 2 at 18-20.
[9] Exhibit 1 at 9; Exhibit 2 at 21-23.
[10] Exhibit 1 at 23-28; Exhibit 2 at 23.
[11] Exhibit 2 at 23.
[12] Exhibit 2 at 24.
[13] Exhibit 2 at 24-25.
[14] FEIS at 3-48.
[15] Exhibit 1 at 9; Exhibit 2 at 1.
[16] Exhibit 1 at 28-33; Exhibit 2 at 26-29.
[17] Exhibit 1 at 23-28, 35; Exhibit 2 at 29-30.
[18] Exhibit 1 at 37-40; Exhibit 2 at 30-31.

Finally, in over two years, the USACE has also not responded to Commenters request for a public hearing on the Section 404 Permit.[20] Given that MARAD has scheduled the final public hearing on the Project for August 23, 2022, Commenters and other interested members of the public deserve an opportunity to have their concerns about the project heard and responded to by the USACE. As you are aware, the USACE's review of the 404 Permit requires specific factual findings by the agency,[21] the definition of the overall project's purpose,[22] an analysis of all practicable alternatives,[23] and independent verification of the information included in the application by the USACE.[24] We request that in your review, you consider these outstanding concerns Commenters have raised to ensure the Project complies with the law.

B. Status of CAA Section 309 Review

Section 309 of the Clean Air Act authorizes USEPA to review certain proposed actions of other federal agencies in accordance with the National Environmental Policy Act and to make those reviews public. The recently published FEIS by MARAD and USCG did not include in Appendix D (Agency Correspondence) any communications from USEPA that would meet this required review. We would appreciate any updates you can provide on the status of the USEPA's CAA Section 309 Review.

C. Request for Information or Meeting

On behalf of the undersigned groups, we thank you for the work you have completed thus far in conducting a complete CWA Section 404 Review and CAA Section 309 Review for the SPOT Project and for your further consideration of the enclosed comments. We would appreciate whatever assistance you are able to provide with respect to any updates on the status of these twin reviews. Please feel free to contact the undersigned if you have any questions or would be agreeable to setting up a meeting with USEPA Region 6 to discuss these reviews further.

Sincerely,

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[19] Exhibit 2 at 31-32.
[20] Exhibit 1 at 13; Exhibit 2 at 8-10.
[21] Exhibit 1 at 8; Exhibit 2 at 10-11.
[22] Exhibit 2 at 12.
[23] Exhibit 2 at 14.
[24] Exhibit 2 at 32.

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Enclosures: *Exhibit 1: May 25, 2020 Comments by Citizens for Clean Air & Clean Water*

Exhibit 2: March 20, 2020 Comments by Sierra Club, Texas Campaign for the Environment, Save RGV, Public Citizen, Ernest Lykissa, Ph.D., Center for Biological Diversity, Earthjustice, Turtle Island Restoration Network, Earthworks, 350 New Orleans, Healthy Gulf, Texas Conservation Partners LLC, Save Our Beach Association, and Patti Chemali

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EXHIBIT 1

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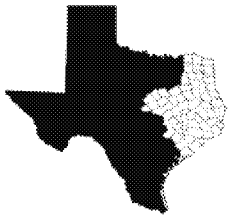

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Re: Sea Port Oil Terminal Deepwater Port Project
Deepwater Port License Application – SPOT Terminal Services LLC
Docket No. MARAD 2019-0011

SPOT Terminal, LLC Clean Water Act Section 404 and Rivers and Harbors Act Section 10 Permit Application
Reference # SWG-2018-00751

Dear Sirs:

On behalf of Citizens for Clean Air and Clean Water (CFCACW) and its represented community of the City of Freeport in Brazoria County, Texas, Lone Star Legal Aid (LSLA) submits these comments to the U.S. Army Corps of Engineers (USACE), the U.S. Coast Guard (USCG) and the Maritime Administration (MARAD) of the Department of Transportation (DOT) on the Draft Environmental Impact Statement (DEIS) for the Sea Port Oil Terminal Deepwater Port Project (hereafter referred to as Project or SPOT Project) to highlight the

potential impacts of this Project on Freeport, Texas and other similarly-situated, coastal communities on the Texas Gulf Coast.

Citizens for Clean Air and Clean Water requests that the USACE, USCG and MARAD (hereinafter referred to collectively as the Federal Agencies) will consider and respond to these comments before finalizing the Final Environmental Impact Statement (FEIS) for the Project or approving any related permits for the Project, including under any permit under Section 404 of the Clean Water Act (CWA) and Rivers and Harbors Act Section 10 pending before the USACE. As referenced above, these written comments jointly concern and address not only the published DEIS for the Project but also the proposed Section 404 Permit under the CWA (hereinafter, CWA Section 404 Permit).

I. INTRODUCTION

LSLA's mission is to protect and advance the civil legal rights of the millions of Texans living in poverty by providing free advocacy, legal representation, and community education that ensures equal access to justice. Our service area encompasses one-third of the state of Texas, including 72 counties in the eastern and Gulf Coast regions of Texas. This service area includes the coastal county of Brazoria and Harris County, which are both within the study area of this Project. LSLA's Environmental Justice Team focuses on the right to fair distribution of environmental benefits and burdens and the right to equal protection from environmental hazards on behalf of impacted communities in LSLA's service area. These comments are submitted on behalf of the environmental justice communities and residents of Freeport, Texas represented by LSLA's group client, Citizens for Clean Air and Clean Water.

Citizens for Clean Air and Clean Water (CFCA&CW) is a citizen group based in Freeport, TX that was formed to educate Freeport residents about environmental issues and to advocate for solutions to protect and improve air and water quality. To this end, CFCA&CW holds community meetings to raise awareness about potentially harmful air and water pollution events in Freeport. The group communicates with the Texas Commission on Environmental Quality (TCEQ) and other state and local governmental entities to keep abreast of the latest developments in the area and engages with the public participation component of environmental permitting by submitting comments and hearing requests on air and water quality permits, with the goal of encouraging pollution control and reduction for the surrounding industry.

A. FREEPORT IS AN ENVIRONMENTAL JUSTICE COMMUNITY COVERED BY THE DEIS

Under Executive Order 12898, as amended "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (59 FR 7629, Feb. 16, 1994), each Federal agency must make efforts to incorporate environmental justice into its policies and programs. Specifically, Executive Order 12898 requires each Federal agency to conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that those programs, policies, and activities do not have the effect of excluding persons from participation in, denying persons the benefit of, or subjecting persons to discrimination because of their race, color, or national origin or income level. Executive Order 12898 specifically requires federal agencies to evaluate the proposed actions for disproportionately high and adverse effects on minority or low-income populations and to find

ways to avoid or minimize these adverse impacts where possible. In preparing an Environmental Impact Statement (EIS), the Federal Agencies are required to consider the environmental justice impacts of any proposed actions under Executive Order 12898. *Coliseum Square, Inc. v. Jackson*, 465 F.3d 215, 232 (5th Cir. 2006).

For purposes of reviewing the environmental impacts of the Project with respect to environmental justice impacts, MARAD and the USCG must evaluate, among other things, whether this Project may: (1) cause adverse and disproportionate environmental, economic, social, or health impacts on minority or low-income populations (minor to major, depending on extent), and (2) cause adverse and disproportionate environmental health and safety risks to children (minor to major, depending on extent).[1]

LSLA acknowledges the Federal Agencies' consideration and "heightened scrutiny"[2] of the SPOT Project's impacts on low-income and minority populations, in accordance with Executive Order 12898. Nevertheless, LSLA has reservations about the methodology employed by the Federal Agencies to arrive at the conclusion that there are "no disproportionate, adverse impacts on environmental justice communities" from this Project.[3] An appropriate analysis utilizing the process prescribed by the National Environmental Policy Act should focus on smaller areas or communities within the affected area to identify significant impacts that may otherwise have been diluted by an examination of a larger population or area.[4] Demographic, geographic, economic and human health and risk factors all contribute to whether the populations of concern face disproportionately high and adverse effects.[5] To trigger Executive Order 12898, the effects of the project must be both adverse, and effect a low-income or minority population more so than it would the general public. Any adverse effects that appreciably put a minority or low-income population at an increased health risk, or appreciably affect their physical or economic wellbeing, will trigger Executive Order 12898.

Freeport, Texas is a small industrial city on the Gulf Coast located in Brazoria County, Texas. A large percentage of Freeport's approximately 12,169 residents[6] are minorities: over 64% are of Hispanic descent, while another 14% identify as Black or African American.[7] Freeport has a higher minority population than 82% of American communities.[8] Freeport is also in the 82nd percentile nationally for the proportion of low-income residents, with a per capita income of $19,277 and 55% of the population classified as low-income.[9] Thirty-five percent of

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[1] DEIS at 3-5.
[2] DEIS at 3-373.
[3] DEIS at ES-23.
[4] Council on Environmental Quality, Considering Cumulative Effects under the National Environmental Policy Act (January 1997) at 27, https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf
[5] *Id.*
[6] DEIS at 3-334.
[7] U.S. Census Bureau, 2010 Census Estimates.
[8] EPA EJ Screen, https://ejscreen.epa.gov.
[9] U.S. Census Bureau, 2010 Census Estimates; EPA EJ Screen, 2019, https://ejscreen.epa.gov (defining low-income as "Percent of individuals whose ratio of household income to poverty level in the past 12 months was less than 2 (as a fraction of individuals for whom ratio was determined); U.S. Census Bureau's American Community Survey 2011-2015.

residents have less than a high school education, worse than 93% of American communities. [10] And 10% are linguistically isolated, well above the national average of 4%.[11]

Figure 1: Map of Existing Industrial Facilities near Freeport, Texas

This population is surrounded by large industrial sources of air and water pollution, most notably the four mammoth chemical processing campuses belonging to Dow Chemical. In addition to Dow, Freeport is also home to petrochemical processing facilities owned by Gladieux, Nalco, Huntsman, SI Group, Braskem, Chevron Philips, Vencorex, and Shin-tech, among others, as well as petrochemical import/export terminals owned by Freeport LNG, Chevron Philips, Enterprise, and BASF. Each of these facilities emits a variety of toxic pollutants into the air and/or water. Due in part to this industrial concentration, Freeport lies within the Houston-Galveston-Brazoria ozone non-attainment area, where levels of ozone pollution consistently exceed the National Ambient Air Quality Standards and are thus not

[10] EPA EJ Screen, https://ejscreen.epa.gov.
[11] EPA EJ Screen, https://ejscreen.epa.gov.

protective of human health.[12] Despite improvements in ozone levels in recent years, the area has never achieved compliance with those health-based air quality standards.

Additionally, many of these plants handle substances designated as "ultra-hazardous" by the U.S. Environmental Protection Agency (EPA), and Freeport residents are nearby more of these high-risk facilities than almost any other community in the country.[13] Freeport residents also rank highly in proximity to Superfund sites, since nearly the entire population lives within five miles of the GulfCo Marine Maintenance Superfund site. GulfCo Marine Maintenance was the site of barge cleaning operations for three decades and became a Superfund site when evidence revealed that hazardous substances were migrating from the site and posing a threat to nearby drinking water supplies and downstream sensitive environments. Finally, Freeport residents are closer to facilities handling hazardous waste than 92% of American communities, and closer to facilities that discharge water pollution than 98% of American communities.[14]

This combination of a high concentration of minority and low-income residents and a high concentration of large industrial polluters is indicative of an environmental justice community. In Freeport, as along much of the Texas gulf coast, minority and low-income populations continue to bear a wildly disproportionate part of the burden of toxic pollution from the state's petrochemical industry, while being denied a share in the economic prosperity that the industry has brought to other parts of the state. Extreme events like hurricanes and the current global pandemic leave these communities particularly vulnerable given that the absence of financial resources to cope with the unexpected.[15]

Moreover, the proposed projects solely benefitting industry like the SPOT Project that come into these communities end up displacing low-income individuals and creating disadvantages that would not otherwise be there.[16] As frankly acknowledged in the DEIS, minority candidates and low-income individuals do not always have the same access to job opportunities created by these projects,[17] which can require more specialized, skilled workers.[18] Further, many project managers will not hire them because they lack certain qualifications or do not fit a specific profile of worker.

In addition, while the DEIS discusses housing availability in the Project area almost as if all rooftops were interchangeable,[19] it does not talk about the affordability of that housing for low-income residents that are not the economic beneficiaries of this Project. In fact, because of this Project, many Freeport residents will find that rents will increase in the area, and temporary or short-term housing, which is often the only option for those that can't afford a down payment, a security deposit, or two months' rent to sign longer leases, becomes even more in demand near

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[12] DEIS at 3-295.
[13] EPA EJ Screen, https://ejscreen.epa.gov (indicating Freeport ranks 98th Percentile for Proximity to Facilities that are required to have Risk Management Plans).
[14] EPA EJ Screen, https://ejscreen.epa.gov.
[15] DEIS at 3-368.
[16] *See, e.g.,* DEIS at 3-377 (discussing disproportionate effects of traffic delays, fishing impacts, and noise impacts on park users).
[17] DEIS at 3-376.
[18] DEIS at 3-378.
[19] DEIS at ES-17, 3-338.

Port Freeport, forcing them to relocate far away from family, support systems, schools, cultural centers, and churches or places of worship. As Port Freeport and other industry have expanded rapidly in the Freeport area over the past several years, filling the hotels and other less permanent options for lodging with transient or commuting workers for most of the week,[20] the Freeport community has already experienced extreme shortages of affordable housing in the area based on others' prosperity.

Moreover, as the DEIS accurately forecasts, individuals benefiting from the economic benefits of Port Freeport and other similar oil industry-related projects, like this one, often will chose to live more affluent places other than Freeport, such as Lake Jackson or Pearland, and just commute to the Project.[21] Thus, the perceived increases in residential tax base and job opportunities promoted by the sponsors of these Projects to gain local support for them may be much more limited than projected for these smaller coastal cities like Freeport. Yet the low-income residents bear all burdens of these Projects, which are many: increased traffic, increased air pollution, affordable housing shortages, increased property taxes, risks to the water supply, security of drinking water, risks to natural recreational assets, impacts to endangered and threatened wildlife, risk of oil spills, and many other burdens discussed in more detail below in Section II.

In considering this Project, CFCA&CW asks MARAD and USCG, for a moment, to consider the Project from the perspective of these socially vulnerable residents who likely will not benefit directly from the Project, but also will be extremely burdened by it. Consideration of these direct, adverse impacts to these shoreline communities should not be minimized or ignored in favor of promoting this Project, which is merely one of many already proposed for the Texas Gulf Coast. It further begs the question, how many of these projects are needed and what responsibility do the Federal Agencies have to ensure that the cumulative impacts of all of these proposed projects, should they move forward, do not end up squandering the abundance that is the Gulf Coast of Texas and sacrificing its most vulnerable residents in the process. Moreover, the fact that the review of this Project is occurring in the time of COVID-19 when opportunities to outreach and engage fully with the impacted public are even more challenging than normal, should further concern the Federal Agencies on the "clock" for this Project to ensure that the assumptions underlying the proposed "public interest" served by this Project are still valid.

II. SUFFICIENCY OF THE DEIS

Under the National Environmental Policy Act (NEPA)—in every recommendation or proposal for a major federal action significantly affecting the quality of the human environment—federal agencies must include a detailed statement on: (1) the environmental impact of a proposed action; (2) any adverse environmental impacts which cannot be avoided should the proposal be implemented; (3) alternatives to the proposed action; (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. 42 U.S.C. §

[20] DEIS at 3-340.
[21] DEIS at 3-339, Figure 3.14-2.

4332(2)(C). This statement is called an Environmental Impact Statement (hereinafter, EIS). 40 CFR § 1508.11.

An EIS must include an analysis of the proposed action's indirect effects and cumulative impact. 40 CFR § 1502.16; *City of Davis v. Coleman*, 521 F.2d 661, 676-77 (9th Cir. 1975); *see City of Shoreacres v. Waterworth*, 420 F.3d 440, 453 (5th Cir. 2005). A rule of reason governs preparation of an EIS, and, thus, every conceivable impact does not need to be considered. *Sierra Club v. Sigler*, 695 F.2d 957, 970 (5th Cir. 1983). "Cumulative impact" is, "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 CFR § 1508.7. "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.* "Indirect effects" are reasonably foreseeable effects caused by the proposed action later in time or removed in distance. 40 CFR § 1508.8(b). "Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." *Id.*

To comply with NEPA, the Project must assess, analyze, and evaluate all cumulative impacts and direct, indirect, connected, secondary, and systemic impacts. Moreover, the Project should use the Council on Environmental Quality's "Considering Cumulative Effects" as a guide to conduct the cumulative impacts analysis.[22] For example, the CEQ provides an appendix with best practices for conducting an ecosystem analysis which emphasizes the principles of biodiversity conversation that are necessary to assess and mitigate environmental effects at the ecosystem level.[23]

In summary, the DEIS for this Project is deficient for several reasons. First, it does not meet the requirements in the Code of Federal Regulations and related guidance adopted by the MARAD for an EIS. Second, it is lacking essential information required in an EIS, which should require MARAD and USCG to publish a supplemental EIS before issuing the FEIS or approving the record of decision. 40 CFR § 1502.9(c)(1).

A. ANALYSIS UNDER SECTION 404 OF THE CLEAN WATER ACT

The Clean Water Act (CWA) has the sweeping goals to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters," 33 U.S.C. § 1251(a), and "to increase the quality and quantity of the Nation's wetlands," *id.* § 2317(a). The Act prohibits the discharge of soil or other materials into wetlands unless authorized by a permit issued by the USACE, 33 U.S.C. § 1344(a); 33 C.F.R. § 322.3; Parts 323, 325, and provides strict substantive limits on approving projects that degrade water quality or harm aquatic uses.

The USACE should the proposed CWA Section 404 permit because the proposed discharge does not comply with the CWA's Section 404(b)(1) guidelines. The Clean Water Act

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[22] Council on Environmental Quality, Considering Cumulative Effects under the NEPA (January 1997), https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf

[23] *Id.* at Appendix 9, at A-37 to A-38.

limits the authority of the USACE to issue permits for the discharge of fill material into the waters of the United States.[24] Specifically, Section 404(b)(1) of the CWA requires the USACE to apply guidelines established by the EPA to restore and maintain the integrity of aquatic ecosystems. 33 U.S.C. § 1344(b)(1); 40 C.F.R. § 230.1(a). The USACE's regulations state that a permit will be denied if the proposed discharge would not comply with the 404(b)(1) guidelines. 33 C.F.R. § 323.6(a).

Under these guidelines, "degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts." 40 C.F.R. § 230.1(d). Discharging fill material in wetlands often destroys habitat and vegetation, degrades water quality, and diminishes wetlands' capacity to store floodwater and shield upland areas from erosion. 40 C.F.R. § 230.41(b). "Fundamental to [the 404(b)(1)] Guidelines is the precept that . . . fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact." 40 C.F.R. § 230.1(c).

Discharging fill material into waters of the United States violates the section 404(b)(1) guidelines when (1) there is a practicable alternative that would have less adverse effect on the aquatic ecosystem; (2) the proposed filling would significantly degrade the aquatic ecosystem; or (3) the proposed filling does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem. *See* 40 C.F.R. § 230.12(a)(3)(i)-(iii); *see also* 40 C.F.R. § 230.10(a), (c), (d). If there remain unavoidable impacts, the USACE must decide what compensatory mitigation is required. 40 C.F.R. § 230.93(a)(1).

In applying the above criteria, the USACE must make detailed factual determinations as to the potential environmental effects of the proposed discharges. *See* 40 C.F.R. §§ 230.11, 230.12(b). Crucially, these factual determinations depend on not only a project's direct effects on aquatic ecosystems, but also the cumulative effects of other discharges and secondary effects associated with the project. *See* 40 C.F.R. § 230.11(g), (h). Thus, while the section 404(b)(1) guidelines apply only to the waters of the United States and coextensive aquatic ecosystems, *see* 40 C.F.R. § 230.3(b), and with respect to the ocean these waters ostensibly include only the territorial seas within three nautical miles of the coastline, *see* 40 C.F.R. § 230.3(s)(6),(r), the USACE must consider the environmental impacts from additional predictable developments, as well as those indirectly caused by a project. In making these factual determinations, the USACE must evaluate the duration and physical extent of any impacts as well as the possible loss of environmental values for different waters. *E.g.*, 40 C.F.R. § 230.11.

There are several specific requirements under the Section 404(b)(1) guidelines that are particularly relevant here. First, the USACE may not issue a permit under Section 404 if there is any "practicable alternative" to the project with less impact on the aquatic ecosystem. 40 C.F.R. § 230.10(a). Second, no discharge can be permitted that jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act. 40 C.F.R. § 230.10(b)(3). Third, the USACE cannot issue the permit unless there is a demonstration that any

[24] 33 U.S.C. § 1344(a), (b), (d); *id.* § 1362(7) (defining "navigable waters" as "waters of the United States"); 33 C.F.R. § 328.3(a)(1), (5), (6) (defining "waters of the United States" to include waters that may be used in interstate commerce, tributaries of such waters, and wetlands adjacent to those tributaries and waters).

discharge from the project "will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern," or if any discharge will result in significant adverse effects to water quality. 40 C.F.R. § 230.10(c). Fourth, the USACE cannot allow discharges unless "appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." 40 C.F.R. § 230.10(d). Finally, the USACE must determine that the project is in the "public interest" by weighing all "relevant" considerations and balancing all probable impacts of the proposed action against its alleged benefits. 33 C.F.R. § 320.4(a). Moreover, the USACE must independently verify all the information in the application. *See, e.g.*, *Greater Yellowstone Coalition v. Flowers*, 359 F.3d 1257, 1269 (10th Cir. 2004); *see also* 40 C.F.R. §1506.5(a). Taken together, these requirements create a "very strong" presumption "that the unnecessary alteration or destruction of (wetlands) should be discouraged as contrary to the public interest." *Buttrey v. United States*, 690 F.2d 1170, 1180 (5th Cir. 1982).

For the reasons discussed below, the analysis contained in the SPOT Project Draft Environmental Impact Statement (DEIS) and the information provided by the USACE from SPOT Terminal's permit application fail to demonstrate that the proposed filling would comply with the section 404(b)(1) guidelines or that the Project is in the public interest.

B. NEPA REQUIREMENTS APPLICABLE TO THE FEDERAL AGENCIES

The Deepwater Port Act (DWPA) authorizes the construction and operation of a deepwater port, but only if MARAD finds that the construction and operation of the port is in the "national interest" and "consistent with national policy goals" including "environmental quality". 33 U.S.C. § 1503(c)(3).

NEPA encourages lead agencies to make diligent efforts to involve the public in preparing and implementing NEPA procedures that involve decisions that will affect the community. Because of the potential impacts of this Project on the nearby communities and residents, strict compliance with NEPA and other environmental review laws, emphasizing public involvement and mitigation for unavoidable impacts, is critical. For example, as USACE regulations recognize, "involving the public is a critical component to NEPA compliance"[25] and DOT regulations requires a DEIS to be made available with an invitation to the public to comment.[26]

Given its scale and proposed location, the SPOT Project must mitigate and minimize negative impacts. Under NEPA, mitigation includes: (a) avoiding the impact altogether, (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation, (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment, (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and (e) compensating for the impact by replacing or providing substitute resources or environments.[27] Specifically, the Project must ensure that it does not threaten the sensitive ecosystems in the Project area and avoids disproportionate adverse impacts on low-

[25] *See, e.g.,* USACE EC No. 1165-2-220 at D-6 (September 10, 2018).
[26] U.S. DOT Order 5610.1D. at 27, 36.
[27] 40 C.F.R. § 1508.20.

income communities and communities of color like the City of Freeport. If such impacts are, as acknowledged in the DEIS, "disproportionate, adverse impacts," mitigation is required.[28]

The regulations of the participating and reviewing Federal Agencies contemplate and require a clear structure for environmental impact statements created in accordance with NEPA. The information and analysis required by environmental review laws should be included in an original or supplemental NEPA document. USACE Regulations may require a supplement to the draft EIS to be prepared as directed by Section 1502.09(c) of Title 40 of the Code of Federal Regulations. 33 C.F.R. 230.13(b). Section 1502.09(c) provides that a supplemental DEIS should be prepared if:

(i) The USACE makes substantial changes in the proposed action that relevant to environmental concerns;
(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; and
(iii) When the USACE determines that the purposes of NEPA will be furthered by doing so.

40 C.F.R. 1502.09(c)(1)-(2). This supplement to a draft EIS should be prepared and filed in the same manner as a draft EIS and must follow the format outlined in 40 C.F.R. 1502.10.[29] That is, the publication of a supplemental EIS would require additional "on the clock" time for review and public comment.

For reasons further explained below, LSLA advises that not only is a supplemental EIS possibly necessary in this case, but also the Federal Agencies should supplement this information with additional public meetings to inform public regarding the impacts of the project, particularly given the current social distancing conditions imposed by the global pandemic, which have prohibited public meetings regarding the Project save one in Lake Jackson.

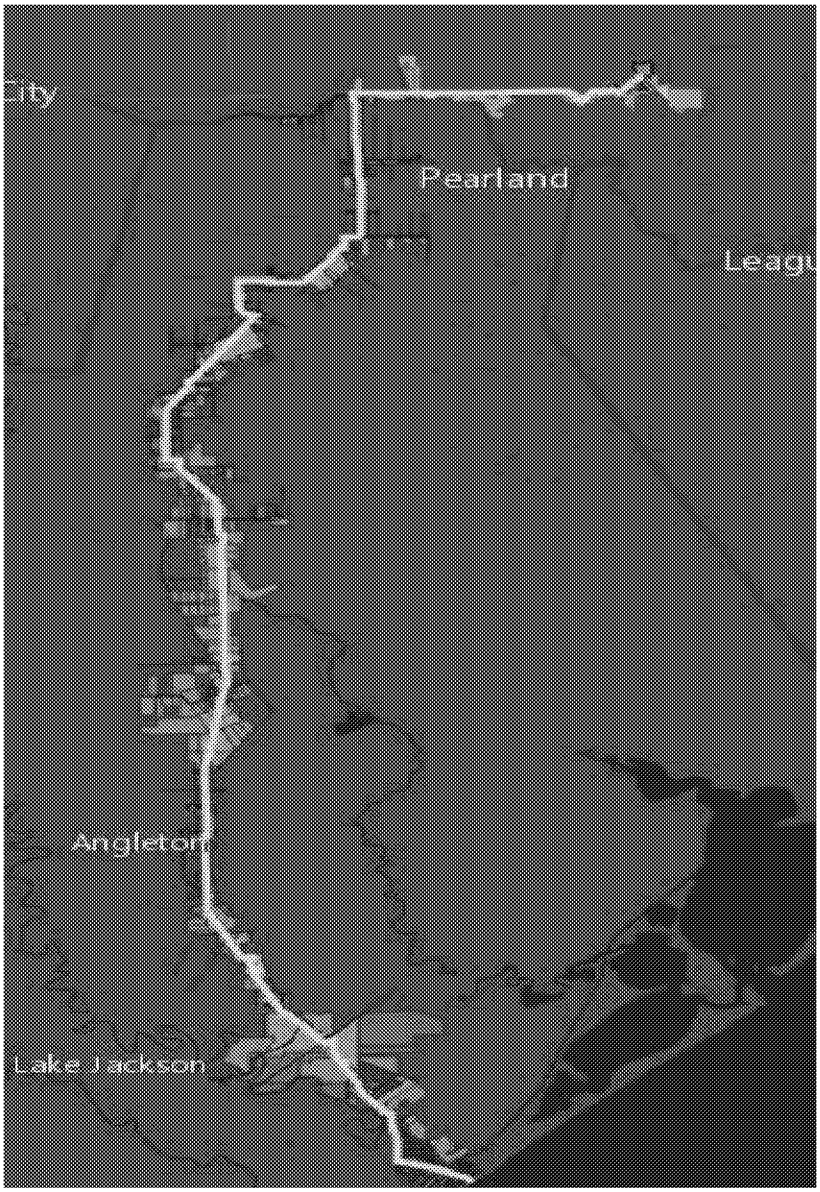
C. PROCEDURAL DEFICIENCIES OF THE DEIS AND REMAINING CONCERNS

1. Landowner Notification Issues

With regards to the 404 Permit under the Clean Water Act, the USACE must give landowners affected by the Project proper notification, including notice to "adjoining property owners." 33 C.F.R. § 325.3(d)(1). Currently, the disclosed online pipeline route for the Project tracks as shown on the next page:

[28] *See* DEIS at 3-376 to 3-377 (discussing visual impacts, land use, air quality, noise and traffic), 5-36.
[29] 33 C.F.R. 230.13(b); U.S. DOT Order 5610.1D at 31.

Figure 2: Existing, Disclosed Proposed Pipeline Route



In recent correspondence to the Applicant concerning environmental consultant dated April 30, 2020,[30] the USCG disclosed that an April 9, 2020 email from Applicant's representative suggested that there had been potential changes or revisions to the pipeline route, including the sharing of an updated landowner list. In commenting on this correspondence, the USCG acknowledged that changes to the pipeline route or configuration will need to be reflected in the Final EIS and that significant changes could have correspondingly significant impacts on the NEPA process.[31] These statements are not only true, but these actions are required to ensure that all impacted property owners are notified and all potential environmental impacts are disclosed and addressed in the review process. The DEIS's current discussion of alternative

[30] MARAD-2019-0011-0163.
[31] *Id.*

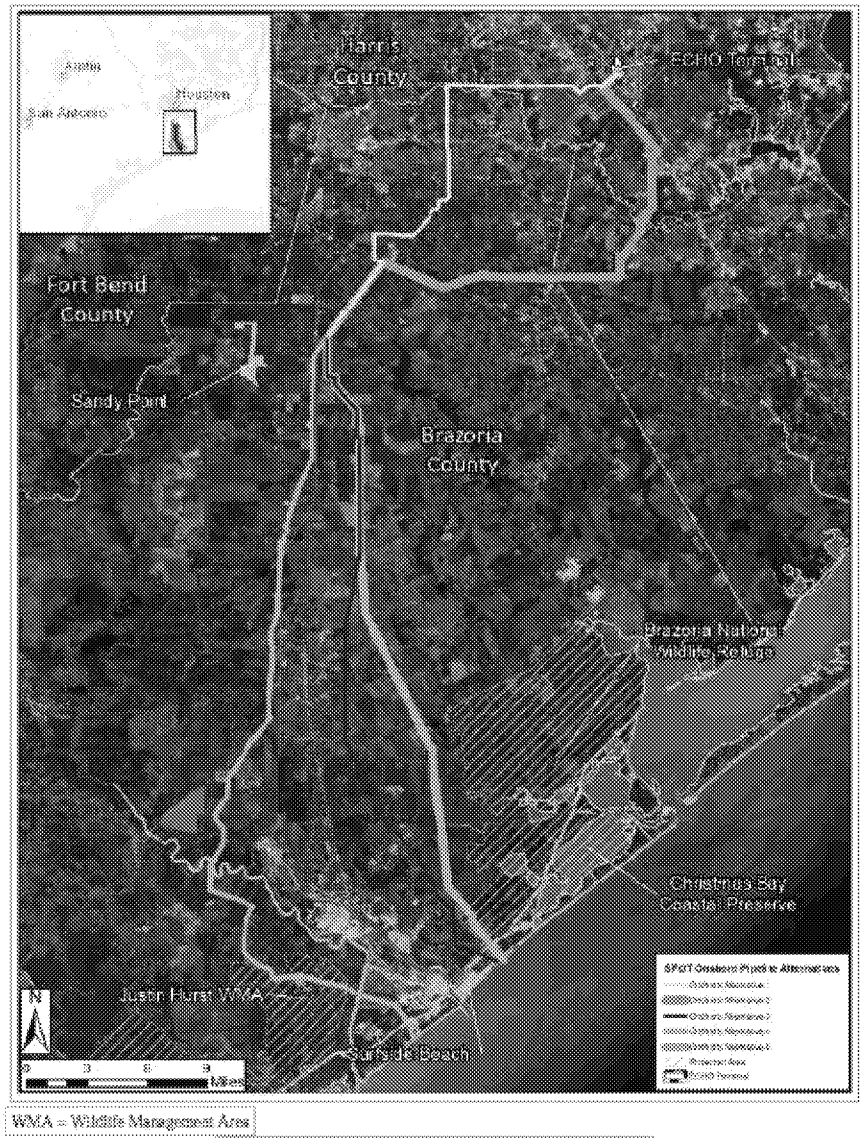
routes, focusing primarily on analyzing Onshore Pipeline Alternative 3,[32] is inadequate in light of the recent USCG disclosures. Similarly, no other terminal options are fully analyzed except for Oyster Creek Terminal Alternative 1.[33]

In addition to the Village of Surfside Beach, the plans for an onshore pipeline related to the Project show horizontal directional drill (HDD) bore across Oyster Creek and lots of open trench pipeline burial work along the proposed route. If there are planned changes to this route either to or from the Oyster Creek Terminal, there are potentially many property owners that have not been not notified as required by statute.

Moreover, two of the onshore pipeline alternatives crossed areas of the Brazoria National Wildlife Refuge (3.4 miles) and Justin Hurst Wildlife Management Area (2.7 miles) as shown in Figure 2.5-1 of the EIS, reprinted below as Figure 3.[34] These impacts of these alternatives, if part of the new route, are not fully discussed in Section 3 the DEIS as these routes are not the stated preferred alternative. Additional analysis is needed on these alternative routes should one be selected given the potential, more severe impacts to wildlife, wetlands and existing nature conservancies represented by these protected areas. The DEIS for the Project is further silent on the mitigation proposed for these areas should they be breached by any modifications to the pipeline route.

[32] DEIS at 3-382 to 3-387; *see also* DEIS at 5-4 (focusing on biological resources).
[33] DEIS at 3-389.
[34] DEIS at 2-69, 2-67, Figure 2.5-1, 3-356.

Figure 3: Onshore Pipeline Pathway Alternatives for SPOT Project



2. The Need for Further Public Meetings on the DEIS and a Public Hearing on CWA Section 404 Permit

For the reasons set forth in detail throughout this letter, CFCA&CW hereby requests from the USACE a public hearing on the SPOT Project application both on the 404 permit application under the Clean Water Act and further public meetings on the DEIS hosted by the Federal Agencies.

Public participation plays an important role in Clean Water Act (CWA) permitting decisions. The Clean Water Act provides in its general policy section that "public participation in the development . . . of any . . . program established by the Administrator. . . under this chapter shall be provided for, encouraged, and assisted by the Administrator . . ." 33 U.S.C. § 1251(e). Section 404 states: "The Secretary may issue permits, after notice and opportunity for public

hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites." 33 U.S.C. § 1344(a). The applicable USACE regulations state: "[A]ny person may request, in writing, . . . that a public hearing be held. . . . Requests for a public hearing under this paragraph shall be granted, unless the district engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing." 33 C.F.R. § 327.4(b). "In case of doubt, a public hearing shall be held." 33 C.F.R. § 327.4(c). The issues concerning the Project, particularly given the present uncertainty of the route, raised by CFCA&CW and other public commenters are of substantial concern. CFCA&CW further requests that any public hearing be scheduled after confirmation that the threats of transmission of COVID-19 have subsided.

Approval of a massive crude oil pipeline through the Texas coast without holding a public hearing would violate the USACE's CWA mandate to involve the public and hold a public hearing. Indeed, there are substantial issues of significant consequence being raised by affected community members and the public at-large, and described below, demonstrating a valid interest in holding a public hearing. The USACE would violate CWA's clear mandate to involve the public and allow public hearings if it approves a massive, precedential offshore export terminal without holding a public hearing related directly to the federal approval process for the CWA Section 404 Permit.

The USCG held a separate public meeting related to the preparation of a DEIS to support SPOT's under the DWPA in Lake Jackson on February 26, 2020. That public meeting was not adequate because a USACE representative did not attend and none of the agency staffers presented information on the permit applications or provided an opportunity to comment on those applications. And it did not conform with USACE regulations which state that "[p]ublic notice shall be given of any public hearing" to "parties having an interest in the subject matter" and "[s]uch notice should normally provide for a period of not less than 30 days following the date of public notice." 33 C.F.R. § 327.11(a). The USCG provided notice of its public meeting on the DEIS on February 7, 2020, less than 20 days before the date of the meeting.[35] The USACE issued no such notice related to the proposed CWA 404 Permit.

Moreover, the USACE did not provide adjacent property owners proper notice under 33 C.F.R. § 325.3(d)(1). Several local Village of Surfside Beach community members and landowners located adjacent to or on property through which pipeline infrastructure for this project would run just learned of the project in the last few months and many more are still unaware. A public hearing on the CWA Section 404 Permit is needed to ensure that all relevant parties receive proper notice and all relevant information related to the permit applications is provided to interested parties. Given the precedential nature of this Project, it is important for the USACE to hold a public hearing to fully evaluate all concerns and inform the public about the nature of the project.

Additionally, given the circumstances of the COVID-19 pandemic and current recommendations from the Center for Disease Control, local public health departments, and other epidemiological experts prohibiting public gatherings of any substantial size and recommending that elderly and other vulnerable populations self-isolate, CFCA&CW requests

[35] 85 Fed. Reg. 7381.

that any public hearing or additional public meetings on the DEIS (or any supplement thereto) be scheduled only after confirmation that the risk of transmission has subsided. These precautions are especially critical for individuals who are affected by the proposed project and are vulnerable or at high-risk for serious illness from COVID-19.

3. Good Cause Exists to Reject the Application under MARAD's Statutory Review Policies

The Deepwater Port Act of 1974 (DWPA), as amended, establishes a licensing system for ownership, construction, operation, and decommissioning of deepwater port structures located beyond the U.S. territorial sea for the import and export of oil and natural gas. The DWPA sets out conditions that deepwater port license applicants must meet, including minimization of adverse impacts on the marine environment and submission of detailed plans for construction, operation, and decommissioning of deepwater ports.

Under the DWPA, all deepwater ports must be licensed by the Secretary of Transportation. The project milestones of the application process have mandatory deadlines and operate on a 356-day 'clock' that begins when the applicant submits a deepwater port license application. MARAD, USCG, and other Federal and State agencies evaluate newly-submitted applications and work with applicants to meet rigorous review requirements as well as the expectations of State regulators and the general public. This 26-day process results in either a Notice of Application (NOA) in the Federal Register or a formal rejection by the Maritime Administrator. 33 U.S.C. § 1504(c).

From the date of publication of a notice of a complete application in the Federal Register, the DWPA establishes a specific time frame of 330 days for approval or denial of the deepwater port license. 33 U.S.C. § 1504. During this time period, MARAD and USCG, in collaboration with other agencies, ensure that an Environmental Impact Statement (EIS) is developed. If MARAD and USCG determine that additional information is necessary during this process, they may suspend an application's review at their discretion. Specifically, MARAD should suspend the application process for the Project if the application is incomplete and the Applicant has not responded to a request for further information. 33 U.S.C. § 148.283. Also, in this time frame, MARAD must receive and assess specific information from participating agencies and efficiently process all required licensing documentation.

Under the procedures set forth in the DWPA, USCG and MARAD also have 240 days from the date of the NOA to hold one or more public hearings on the license in the adjacent coastal state, here, Texas, for the project. 33 U.S.C. § 1504(g). The Record of Decision, which is issued regardless of approval or disapproval, must be issued within 90 days of the last public hearing, which by statute, must take place within 240 days after the public has been notified of a complete application. 33 U.S.C. § 1504(i).

Once the application has gone through the Federal, State and National Environmental Protection Act review processes, it reaches the Record of Decision stage. The DWPA sets out detailed procedures for the issuance of licenses by the Secretary of Transportation (Secretary) and prohibits the issuance of a license without the approval of the Governors of the Adjacent Coastal States. Specifically, the Secretary is required to establish environmental review criteria

consistent with the National Environmental Policy Act. On June 18, 2003, the Secretary authorized the Maritime Administrator to "carry out the following powers and duties and exercise the authorities vested in the Secretary by the Deepwater Port Act of 1974, Public Law 93–627, as amended (33 U.S.C. 1501 *et seq.*)" (68 FR 36496).

Thus, ultimately, MARAD has the final approval authority and responsibility to issue the Record of Decision and License. MARAD must consider nine criteria to approve an application for a license. These nine criteria include:

1. Financial responsibility,
2. Compliance with relevant laws, regulations and license conditions,
3. National interest,
4. International navigation,
5. Impact on the marine environment,
6. National environmental laws,[36]
7. Consultation with the Secretaries of the Army, State and Defense,
8. Governor of the Adjacent Coastal State, and
9. Consistency with Coastal Zone Management Program.

33 U.S.C. § 1503(c).

If a favorable Record of Decision is issued, MARAD will stipulate certain conditions the applicant must comply with in order to receive an official deepwater port license. Upon certification of acceptable compliance with applicable laws, requirements and conditions, MARAD will grant a deepwater port license.

Based on the current review of application for this Project, its timeline will likely to exceed the statutory 356-day clock allowed for projects under the DWPA. Here, the Applicant submitted its application for the SPOT Project to MARAD on January 31, 2019.[37] By statute, the Notice of Application is published within 26 days of receipt of the application. 33 U.S.C. § 1504(c). Here, the NOA was published on March 4, 2019 (33 days after receipt).

Table 1: Timeline of Regulatory Review of the Project Application

Date	**Event**	**Days Elapsed from Application**	**Days Elapsed from NOA**
03/04/2019	Notice of Application Published[38]	32	0
03/07/2019	Notice of Intent to Prepare EIS Published[39]	35	3
05/31/2019	First Stop Clock Suspension[40]	120	88

[36] Permits pending before the EPA are located at Docket No. EPA-R06-OAR-2019-0576 on www.regulations.gov. As of the date of these comments, the EPA has not issued a decision on these permits, nor have final permits been issued for review.
[37] DEIS at ES-1.
[38] 84 Fed. Reg. 7413 (March 4, 2019).
[39] 84 Fed. Reg. 8401 (March 7, 2019).
[40] 85 Fed. Reg. 7382 (Feb. 7, 2020).

Date	Event	Days Elapsed from Application	Days Elapsed from NOA
10/23/2019	First Start Clock Letter Issued[41]	120	88
11/21/2019	Second Stop Clock Suspension	148	116
02/05/2020	Second Start Clock Letter Issued[42]	148	116
02/07/2020	Draft EIS Published[43]	150	118
02/26/2020	Public Meeting in Lake Jackson[44]	171	137
06/01/2020	Deadline for Public Comment on DEIS[45]	**267**	**233**

Typically, according to MARAD, the Final Environmental Impact Statement (FEIS) would be published between Day 198 to 251 from the date the application is submitted.[46] As shown in the chart above, this Project has already exceeded this normal timeline even with two stopped clock notices issued by the USCG.

Further, the USCG recently posted its April 30, 2020 letter to the Applicant to the MARAD docket for the Project,[47] indicating that SPOT Terminal Services, LLC had exercised its contractual rights to cancel its contract with the third party environmental consultant on the Project, Environmental Resources Management (ERM). This letter further expressed concern that, as a result of this termination, USCG could not obtain critical project information to further process the permit. Finally, the letter mentions potential proposed changes to the pipeline route, which are details that still are not publicly available. Based on the scope of the impacts described in the existing DEIS, any changes to the pipeline route would trigger the obligation to supplement the disclosures and impacts in the February 7, 2020 DEIS. Despite this lack of information and necessary resources to conduct or complete the environmental review, the USCG chose not to stop the clock on the Project. Instead, it extended the comment period on the published DEIS, knowing the document was incomplete (or likely inaccurate as to the pipeline routes) and would require supplementation as stated in its April 30, 2020 letter.[48]

The DWPA mandates that a final public hearing on the license for the Project must take place within 240 days of the NOA (after the publication of the FEIS). 33 U.S.C. § 1504(g). The FEIS has not yet been published. A final public hearing has not yet occurred, nor has one been publicly noticed as of the date of these comments. By law, the public hearing must take place on or before the 240th day after publication of the NOA for the Project, which unless USCG intervenes to stop the clock again, cannot be accomplished according to the typical timeline, requiring the final public hearing to be held sometime between Day 252 to 266 after the submission of the application.[49]

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[41] 85 Fed. Reg. 7382 (Feb. 7, 2020); MARAD-2019-0011-0026.
[42] MARAD-2019-0011-0035.
[43] 85 Fed. Reg. 7381 (Feb. 7, 2020).
[44] 85 Fed. Reg. (Feb. 7, 2020).
[45] 85 Fed. Reg. (May 1, 2020).
[46] https://maritime.dot.gov/ports/deepwater-ports-and-licensing/licensing-process
[47] MARAD-2019-0011-0163.
[48] MARAD-2019-0011-0163.
[49] https://maritime.dot.gov/ports/deepwater-ports-and-licensing/licensing-process

The DWPA further requires the rejection or approval of the license within 90 days of the last public hearing. 33 U.S.C. § 1504(g). Thus, a Record of Decision on the application—either a rejection or approval—must happen no later than 330 days after the NOA (90 + 240 days) or 356 days after the date of application (26 + 90 + 240 days). As of June 1, 2020, under the statutory limitations of the DWPA there will only be 89 days remaining on the 356-day clock for MARAD to make a decision regarding the application. Given that there is not sufficient time to respond substantively to comments on the DEIS; publish a FEIS; conduct a public hearing on the license, or receive comments from the Governor of Texas and other Federal Agencies within this limited timeframe. The situation is further complicated by the absence of an environmental consultant given ERM's termination and the knowledge that a supplemental DEIS is likely mandated. It would appear that MARAD has no reasonable alternative but to reject the application.

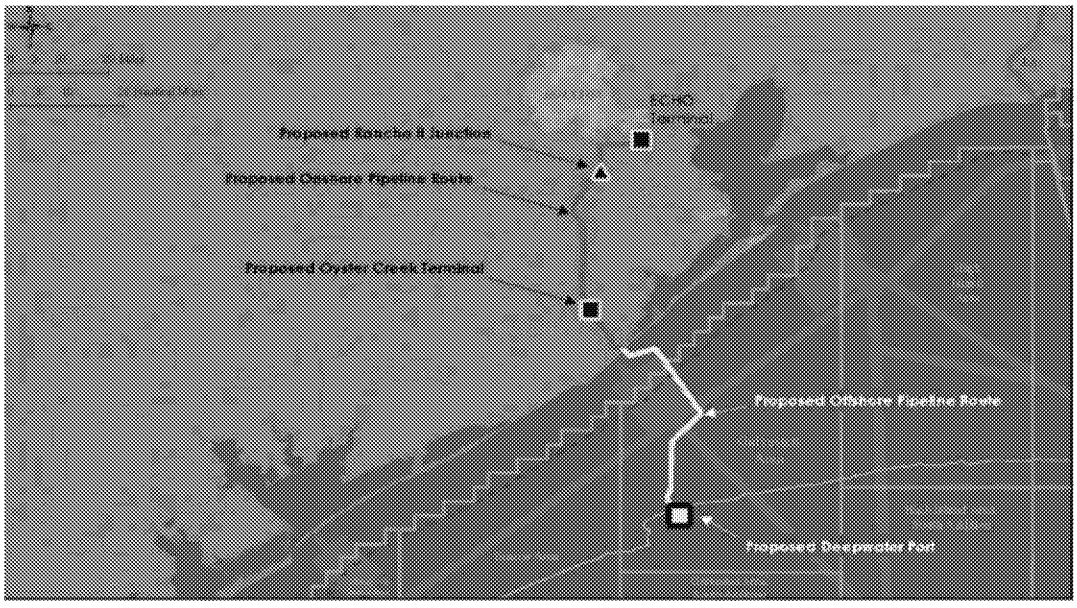
Under these circumstances, CFCA&CW feels strongly that MARAD has the statutory authority to deny this Project for failing to fit with the statutory application processing deadlines set under the DWPA despite granting the Applicant two suspensions of the clock during the Project, totaling 221 days (145 days and 76 days, respectively). Moreover, for the reasons described below there are fundamental flaws with this Project that would require MARAD to reject the permit application anyway based on the evaluation criteria cited above.

D. Substantive Deficiencies of the DEIS and Underlying Concerns about the Project

As described in the Executive Summary of the DEIS, SPOT Terminal Services LLC (Applicant), a wholly owned subsidiary of Enterprise Products Operating LLC (EPO) has proposed the Sea Port Oil Terminal (SPOT) Project and seeks a Federal license under the DWPA to own, construct, operate, and eventually decommission a deepwater port (DWP) for the transportation of crude oil for export to the global market in U.S. Federal waters between 27.2 and 30.8 nautical miles off the coast of Brazoria County, Texas. The SPOT Project would allow for up to two very large crude carriers (VLCC) or other crude oil carriers to moor at single point mooring (SPM) buoys. EPO proposes to use its affiliates' existing assets and access to varying grades of crude oil supplies from multiple sources along the northern Texas Gulf Coast. Oil would be delivered to the SPOT Project via two new collocated, offshore oil pipelines sourced from two new collocated onshore pipelines as shown in Figure 4 below. Admittedly, the only benefits of the proposed Project are "principally those associated with an increase of supplies of crude oil for export."[50] As these comments will conclude, the current DEIS does not demonstrate the tradeoffs for local communities like Freeport are worth it.

[50] DEIS at 8-1.

Figure 4: Map Showing Proposed Project Area and Related Onshore and Offshore Structures



1. Failure to Fully Analyze Potential Impacts to Sources of Local Drinking Water

For purposes of reviewing the environmental impacts of the Project with respect to water resources, MARAD and the USCG must evaluate, among other things, whether this Project may: (1) cause irreparable harm to human health, aquatic life, or beneficial uses of aquatic ecosystems, (2) degrade groundwater quantity or quality (major), and (3) degrade marine coastal, or terrestrial (lakes, rivers, wetlands, tidal environments) water quality (minor to major, depending on extent).[51] In addition, USACE guidelines relating to the CWA 404 Permit state that "[n]o discharge of dredged or fill material shall be permitted if it: (1) Causes or contributes … to violations of any applicable State water quality standard." 40 C.F.R. § 230.10(b)(1). The onshore Project components would cross 129 waterbodies, including 48 perennial waterbodies, 21 intermittent waterbodies, 50 ephemeral waterbodies, and 10 ponds.[52] The Brazos River in the Brazos River Watershed and Oyster Creek in the Lower Oyster Creek Watershed are larger waterbodies that supply freshwater inputs into the Gulf of Mexico near the Project area.[53] Construction and operation of the Project will potentially increase pollutant loads to these waterbodies. Like most of the communities in the area, the City of Freeport gets its drinking water from surface water from the Brazos River. Accordingly, the USACE must evaluate whether discharges from the proposed project will violate state water quality standards and lead to degradation of these waterbodies. As the DEIS outlines, there are definite reasons to be concerned about the projects impacts to water resources.[54]

[51] DEIS at 3-3.
[52] DEIS at ES-8, 3-356.
[53] DEIS at ES-9.
[54] DEIS at 3-374.

Securing clean drinking water in the Project area is a big issue as contaminated groundwater from industrial sources has already jeopardized local water supplies in Surfside Beach and Jones Creek. Because of existing contamination, those that want to access clean drinking water already have to drill down at least 600 feet, which is an expensive water well to drill. The DEIS acknowledges that the onshore proposed Project would be within the area of the Gulf Coast aquifer, which provides groundwater support for approximately one-third of the Texas population.[55] Underlying all or portions of the 54 counties within 5 states along the Gulf Coast and inland along the coastal plain,[56] the Gulf Coast aquifer is used primarily for municipal, industrial and irrigation purposes.[57] The Jasper, Evangeline and Chicot aquifers make up up the Gulf Coast aquifer.[58]

CFCA&CW worries about the long-term implications of such a project on drinking water supplies in the area, both for surface water sources, like the Brazos River, part of the Brazos River Basin and Lower Brazos River Sub Basin, which supplies the City of Freeport, and already contaminated groundwater sources that have traditionally supplied smaller municipal systems like Surfside Beach and Jones Creek. Historically, Surfside Breach has obtained its potable water supply from water wells, but recently entered a contract with the City of Freeport to supply the village water. Now the SPOT Project threatens to further endanger and contaminate that newly obtained water supply for residents and visitors to Surfside Beach and other local communities.

Water has always been an important resource in this area, readily available through relatively shallow water wells driven into the Chicot and Evangeline aquifers. For many years, these supplies were more than adequate in quality and quantity. However, in the 1970s, new concerns threatened this traditionally stable source of water. Complaints concerning declining water levels and increased salinity in existing wells occurred regularly. At this point, Brazoria County community leaders formed a committee to decide options for providing a stable water supply.

After reviewing potential options, community leaders found a solution in the Texas Legislature's creation of the Brazosport Water Authority (BWA) in 1985 to serve as a regional water supplier to the area using treated surface water from the Brazos River. Since 1989, the BWA has been providing potable water to seven cities in the area, including: Angleton, Brazoria, Clute, Freeport, Lake Jackson, Richwood, and Oyster Creek. BWA is on 20 acres on the west side of Lake Jackson, off FM 2004 along the Dow raw water canal and about 1 mile from the Brazos River. The raw water flowing by the plant is the feedstock purified to provide potable water for its customers. With the exception of Freeport, the cities have backup groundwater wells used as supplement and co-mingled with BWA water to meet daily city demands. Once the BWA water is transferred to a city storage tank, the city transfers it to individual households.

There is substantial cause for concern that the Project will have unacceptably adverse impacts to ecosystems of concern. The Project will discharge in over a hundred waterbodies and cross at least five waters that are already impaired, *i.e.* do not currently meet applicable water

[55] DEIS at ES-8.
[56] DEIS at 3-7.
[57] DEIS at ES-8.
[58] DEIS at 3-7.

quality standards.[59] Failure to show that the Project actually will comply with water quality standards and be sufficiently protective of waterways to comply with the CWA's requirements makes the Project ineligible for a permit under Section 404. *See* 40 C.F.R. § 230.10(c).

With respect to groundwater impacts, there are several water wells relied on for public water supply within 150 feet of the SPOT Project Workspace in both Brazoria and Harris Counties as summarized in Table 3.3.3-1 of the DEIS.[60] Ranging in depths from 300 to 1200 feet, these public water wells serve to provide drinking water for municipal systems and are at risk from this Project. Additional details on known connections listed in Texas Drinking Water Watch for each public water supply system are listed below in the following table, which merely expands on the information already presented in Table 3.3.3-1 of the DEIS to quantify and illustrate the populations at risk, which exceed 2.2 million connections.

Table 2: Water Wells Supplying Public Drinking Water

Well ID	**Well Type**	**Municipality**	**Known Connections**	**Approximate Well Depth**	**Aquifer**	**County**
PWS ID: 1010013	Public Water Supply[61]	City of Houston	2,231,588	1,200	Evangeline	Harris
TWDB ID: 6531209	Public Water Supply	City of Houston Sagemont #1	0	1,201	Evangeline	Harris
TWDB ID: 65350538	Public Water Supply	Rain Tree Estates #2	0	315	Chicot	Brazoria
TWDB ID: 6530537	Public Water Supply	Rain Tree Estates #1	0	513	Chicot	Brazoria
PWS ID: 0200390	Public Water Supply[62]	Rain Tree Estates	528	513	Chicot	Brazoria
SDR ID: 457953	Public Water Supply[63]	Brazoria County MUD 55 & 56	49	1,133	Chicot	Brazoria

[59] DEIS at 3-18.
[60] DEIS at 3-8.
[61] Texas Drinking Water Watch, https://dww2.tceq.texas.gov/DWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=2190&tinwsys_st_code=TX&wsnumber=TX1010013%20%20%20&DWWState=TX
[62] Texas Drinking Water Watch, https://dww2.tceq.texas.gov/DWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=540&tinwsys_st_code=TX&wsnumber=TX0200390%20%20%20&DWWState=TX
[63] Texas Drinking Water Watch, https://dww2.tceq.texas.gov/DWW/JSP/SearchDispatch?number=&name=Brazoria+County+MUD&ActivityStatusCD=All&county=All&WaterSystemType=All&SourceWaterType=All&SampleType=null&begin_date=5%2F26%2F2018&end_date=5%2F26%2F2020&action=Search+For+Water+Systems

The DEIS discloses that trench excavation associated with construction of the onshore pipeline may intersect the water table in areas where groundwater is near the surface,[64] resulting in potential groundwater contamination or pathways for such contamination. Moreover, leaks from petroleum storage tanks in populated areas are the most common source of groundwater contamination in Texas.[65] Table 3.3.3.2 of the DEIS already profiles four different sites within 0.25 miles of the SPOT Project Workspace where a petroleum release has already contaminated the groundwater in that area.[66] The likelihood of such an event happening again must be considered high. The DEIS acknowledges that if such spills are not adequately cleaned up, contaminated soil could continue to leach and add pollutants to the groundwater long after a spill occurred, placing these users of municipal water systems dependent on ground water at risk.[67] Moreover, during the operation of the Project, an oil spill on land could contaminate the ground water as well.[68] These water systems would continue to be at risk for at least 30 years during the operation of the Project and possibly longer since biodegradation of oil in the anaerobic zone of soils is very slow.[69]

The Village of Surfside Beach, identified as Public Water System TX0200037 by the Texas Commission on Environmental Quality (TCEQ), has struggled with water and sewer issues for years. The potential for additional contamination from this Project would only compound their groundwater problems. The current contaminants in the City's drinking water have been identified that cause potential health risks and create the discoloration and staining problems that are island-wide. These contaminants include arsenic, lead, copper, iron and manganese as well as E. coli. TCEQ began notifying the Village of Surfside Beach about problems with its water supply in 2003, and Texas Drinking Water Watch reports for the system provides a laundry list of water quality violations that continue to plague the small community.[70]

Now that Surfside Beach is partially dependent on water from the City of Freeport through the BWA to transport drinking water through water lines along Bluewater Highway, there is a risk of potential contamination to the drinking water supply provided by the City of Freeport to Surfside by this Project. Given that the proposed Project's pipelines will cross Bluewater Highway also known as Brazoria CR 257,[71] there are risks both during construction and operation of the pipeline that a spill could impact this drinking water supply. Such a risk implicates not only Surfside Beach, but also the City of Freeport as the municipal water provider responsible for ensuring the safety of that water supply, which is regulated by the TCEQ. Local residents in Freeport itself as well as the City of Freeport are very concerned about such an event impacting their area water supply and the related expense. The DEIS fails to analyze fully these risks to smaller water supply systems in the Project area.

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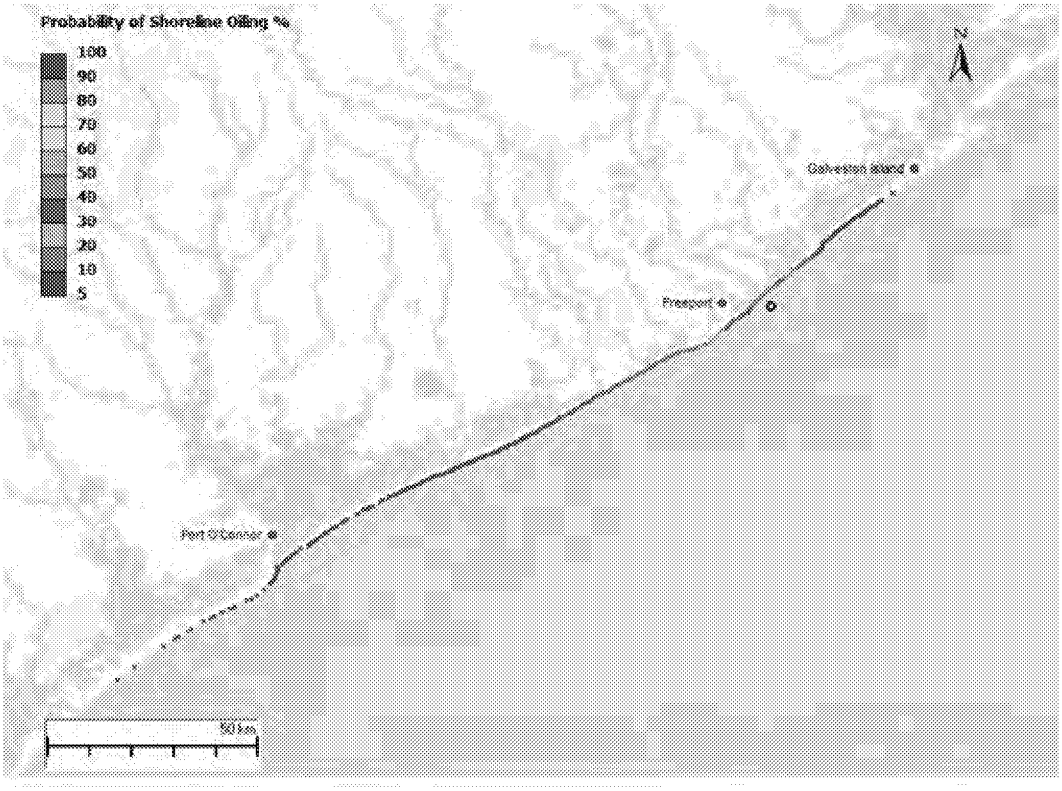
[64] DEIS at 2-41, 3-11.
[65] DEIS at 3-7.
[66] DEIS at 3-10.
[67] DEIS at 3-12.
[68] DEIS at 3-13.
[69] DEIS at 3-13.
[70] Texas Drinking Water Watch, https://dww2.tceq.texas.gov/DWW/JSP/Violations.jsp?tinwsys_is_number=428&tinwsys_st_code=TX&wsnumber=TX0200037%20%20%20&DWWState=TX
[71] DEIS at 3-356.

2. Failure to Fully Analyze Potential for Oil Spills or their Impacts

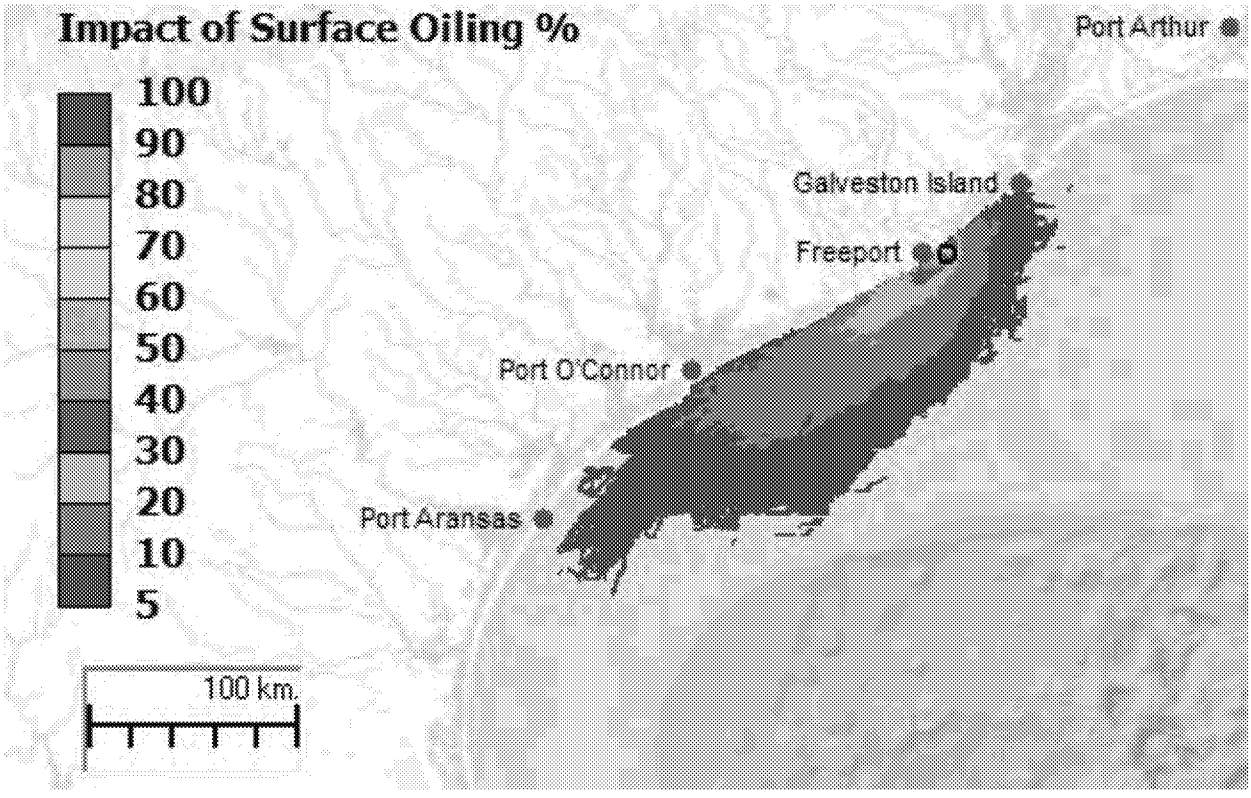
Oil spills are a common and very dangerous occurrence in projects like SPOT. The DEIS admits that "leaks from petroleum storage tanks in heavily populated areas like Houston are the most common source of groundwater contamination," and "the largest sources of releases of toxic substances in the GoM are from the oil and gas, and chemical industries."[72] The DEIS definitively states that "[s]pills cause damage to ecosystems, harm human health, and disrupt local economies."[73] Since the late 1990s, there has been an average of 285 oil spills per year in the Galveston Bay.[74] The model included in the DEIS predicts that the immediate Freeport area has the highest probability and worst predicted impact in encountering shoreline oiling should there be a release from a proposed SPOT pipeline.[75] While taking the space to explain the real, obvious hazards of crude oil in the environment,[76] the DEIS ultimately discounts these hazards when assessing the real risks of such a spill during construction or operations.[77]

Figure 5: Close to Shore Scenario (Scenario 2) of Potential Oil Spill Effect on Shoreline[78]



[72] DEIS at 3-7.
[73] *Id.*
[74] Matthew Tresaugue, Oil Spills in Galveston Bay a Routine Occurrence, HOUSTON CHRONICLE (Apr. 6, 2014), http://www.houstonchronicle.com/news/science-environment/article/Oil-spills-in-Galveston-Bay-a-routine-occurrence-5381283.php.
[75] DEIS at 4-41.
[76] DEIS at 4-4 to 4-8.
[77] DEIS at 4-16 to 4-23, 4-30.
[78] *Id.*

Figure 6: Close to Shoreline Scenario (Scenario 2) of Gulf of Mexico Potential Oil Spill Impact[79]



The SPOT Project would worsen the existing serious risk of oil spill that the residents of Freeport face.[80] In fact, Freeport has just recently been exposed to a pipeline oil spill. Reportedly on April 9, 2020, Shell halted production on its 100,000 barrel-per-day Perdido deep water hub, and Exxon shut down its Hoover platform.[81] On April 13, Shell held Exxon responsible for the shutdown, pointing to a subsurface leak in Exxon's Hoover Offshore Oil Pipeline System (HOOPS) that forced the pipeline to close for repairs.[82] Exxon's spokesman owned up to the incident and promised the line would reopen upon repair.[83] However, on April 14, Exxon renounced its responsibility for the incident and blamed the shutdowns on a leak at the U.S. Department of Energy's Bryan Mound Strategic Petroleum Reserve in Freeport, Texas.[84]

According to the National Oceanic and Atmospheric Administration's (NOAA) Incident Archive, on April 7, a subsurface pipeline discharged approximately 200 barrels of oil at a Bryan

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[79] DEIS at 4-44

[80] DEIS at 3-377.

[81] *Shell, Exxon Halt Some Gulf of Mexico Flows Due to Exxon Pipeline Leak*, PIPELINE & GAS JOURNAL (Apr. 13, 2020),https://pgjonline.com/news/2020/04-april/shell-exxon-halt-some-gulf-of-mexico-flows-due-to-exxon-pipeline-leak

[82] *Id.*

[83] *Id.*

[84] *Shell Restarts U.S. Offshore Oil Hub After Pipeline Leak,* PIPELINE & GAS JOURNAL (Apr. 17, 2020), https://pgjonline.com/news/2020/04-april/shell-restarts-us-offshore-oil-hub-after-pipeline-leak

Mound facility, and Exxon responded to the scene.[85] An unspecified amount of the discharged oil found its way into Blue Lake, a nearby non-navigable water body.[86] The United States Coast Guard's (USCG) National Response Center received two calls from the Bryan Mound facility in the early morning of April 7.[87] The caller reported an unexplained crude oil spill, originating from a transfer pipeline that seeped into Blue Lake.[88] It is unclear whether Shell's Perdido hub, Exxon's Hoover platform, and Exxon's HOOPS shut down on April 7 or on April 9. However, all three resumed activity on April 14.[89]

The confusion and lack of transparency around the incident is of great concern to the residents of Freeport. The area is already home to a densely concentrated web of pipelines connecting to existing deepwater and onshore facilities, as well as the aforementioned Bryan Mound Strategic Petroleum Reserve, which has a 247.1-million-barrel storage capacity.[90] The still unclarified government and private response to the April Bryan Mound incident demonstrates the industry's general disregard for the well-being and informed consent of Freeport's residents. CFCA&CW remains unpersuaded that the industry is capable of considering and safeguarding the health and safety of Freeport's residents. The SPOT Project would only exacerbate the situation and contribute to the frequent occurrence of oil spills in Brazoria County.

Pipelines fail frequently, and the economic costs of the cleanup are vast. Between 2009 and 2018, there were 643 significant incidents on crude oil pipelines.[91] The Dakota Access Pipeline has spilled over 6,100 gallons of Bakken crude oil in 12 separate incidents, and it has only been in operation for two years.[92] The Keystone Pipeline's first year of operation experienced almost a dozen spills.[93] More recently, the Keystone Pipeline reportedly discharged 383,000 gallons of crude oil onto North Dakota rural wetlands in November 2019,[94] and subsequent calculations have counted more than ten times that amount.[95] Enbridge's pipeline spill in the Kalamazoo River resulted in almost $1 billion dollars of expenses to cover the decade-long cleanup effort.[96]

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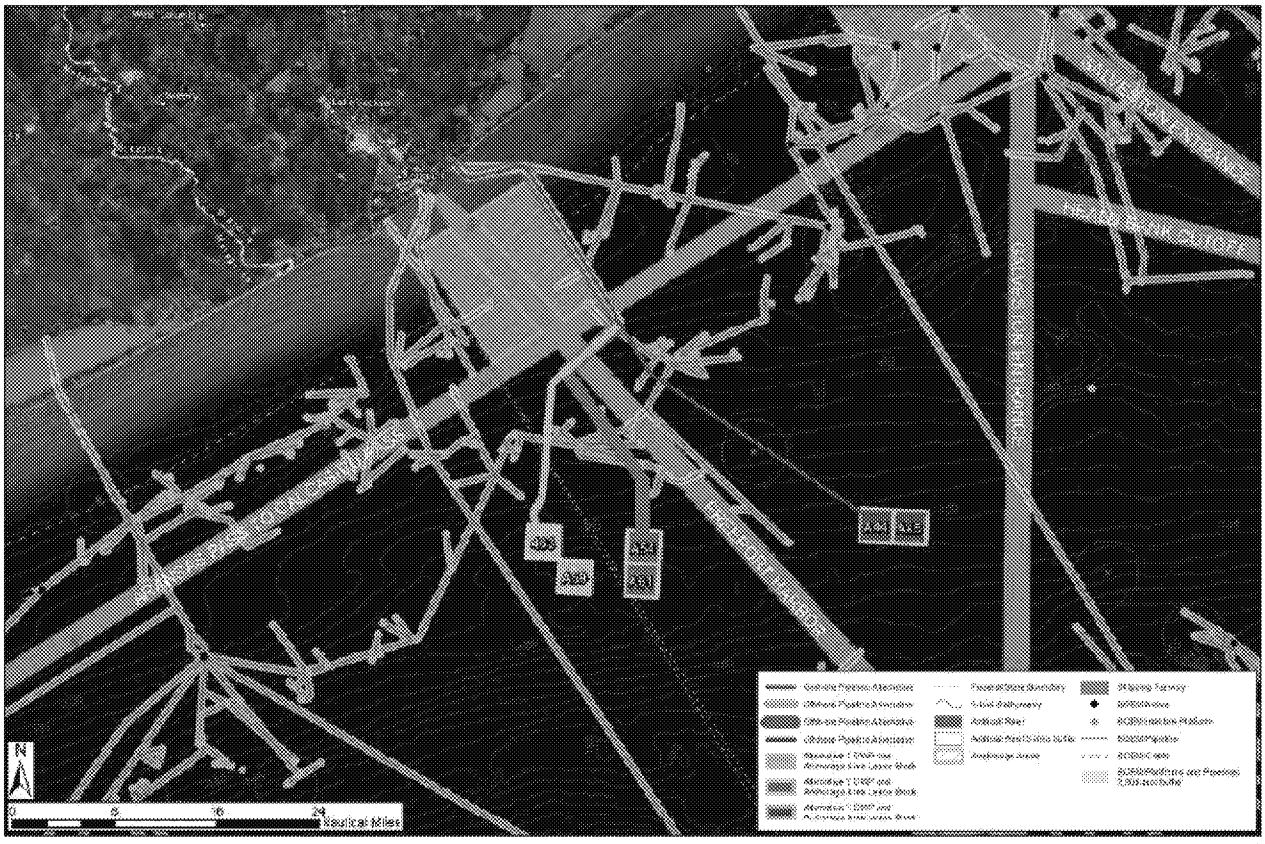
[85] *Bryan Mound Incident*, NOAA INCIDENT NEWS (Apr. 10, 2020), https://incidentnews.noaa.gov/incident/10069.
[86] *Id.*
[87] U.S. COAST GUARD NAT'L RESPONSE CTR., 2020 REPORTS, https://nrc.uscg.mil/. NRC #: 1274943; 1274944
[88] *Id.*
[89] Shell Restarts U.S. Offshore Oil Hub After Pipeline Leak, PIPELINE & GAS JOURNAL (Apr. 17, 2020), https://pgjonline.com/news/2020/04-april/shell-restarts-us-offshore-oil-hub-after-pipeline-leak
[90] *Strategic Petroleum Reserve*, U.S. DEP'T OF ENERGY, https://www.energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve/spr-storage-sites#BMsite
[91] DEIS at 4-77.
[92] Catherine Collentine, *Fighting the Dakota Access Pipeline Expansion, State by State*, SIERRA CLUB (Feb. 27, 2020, https://www.sierraclub.org/articles/2020/02/fighting-dakota-access-pipeline-expansion-state-state
[93] Phil McKenna, Keystone Pipeline Spills 383,000 Gallons of Oil into N.D. Wetlands, INSIDE CLIMATE NEWS (Nov. 1, 2019), https://insideclimatenews.org/news/01112019/oil-spill-keystone-pipeline-tar-sands-north-dakota-wetlands-kxl
[94] *Id.*
[95] Catherine Collentine, Fighting the Dakota Access Pipeline Expansion, State by State, SIERRA CLUB (Feb. 27, 2020, https://www.sierraclub.org/articles/2020/02/fighting-dakota-access-pipeline-expansion-state-state.
[96] *Id.*

Moreover, the SPOT Project's deepwater nature makes it susceptible to offshore oil blowouts and spills. The Bureau of Ocean Energy Management (BOEM) estimates that the process to stop the flow of an active spill from a deepwater blowout would take up to 4 months.[97] The subsequent cleanup process would last even longer – for example, the Deepwater Horizon response in some Gulf Coast states lasted several years due to the resurfacing of buried onshore oil and re-oiling from inshore oil mats.[98] Drawing from his studies following the Exxon Valdez spill of 1989, Dr. Jeffrey Short asserted that residual oil could remain in the environment for over a hundred years.[99] Deepwater oil spills result in significant economic and ecological losses.

Figure 7: Alternative Deepwater Port Sites and Offshore Pipeline Routes[100]



Historically, offshore oil projects have produced catastrophic results in the Gulf of Mexico. The Ixtoc I well blowout of 1979 released 140 million gallons of oil into the Gulf, 3

[97] BUREAU OF OCEAN ENERGY MGMT., GULF OF MEXICO OCS REGION, CATASTROPHIC SPILL EVENT ANALYSIS: HIGH-VOLUME, EXTENDED-DURATION OIL SPILL RESULTING FROM LOSS OF WELL CONTROL ON THE GULF OF MEXICO OUTER CONTINENTAL SHELF, 1ST REVISION (2017).

[98] *Id.*

[99] Justin Gillis & Leslie Kaufman, After Oil Spills, Hidden Damage Can Last for Years, N.Y. TIMES (July 17, 2010), https://www.nytimes.com/2010/07/18/science/earth/18enviro.html.

[100] DEIS at 74, Figure 2.7-1.

million of which reached the shores of Texas.[101] The beach cleanup process and subsequent return to normal levels of recreational activity took nearly three years.[102] One study found evidence of chronic exposure to hydrocarbons in dead sea turtles following the Ixtoc disaster.[103] The Deepwater Horizon disaster of 2010 had a similar impact on sea turtles, as well as acute toxic exposure of oil to several previously healthy coral communities in the Gulf.[104] The Deepwater Horizon explosion and oil spill covered a Louisiana salt marsh area to such an extent that hurricanes, subsidence, saltwater intrusion, sea-level rise, and other now more common environmental events would have taken nine years to produce an equivalent amount of land loss.[105] The Deepwater Horizon Natural Resource Damage Assessment Trustees (2016) estimated that the explosion, spill, and response created between a $527.6 million and $858.9 million loss in the recreation industry and resulted in a peak fishing closure of 37% of federal waters.[106]

The high probability of oil spills from the SPOT Project poses a serious risk to the water quality of neighboring communities. Surprisingly, scientists have not extensively studied the impacts oil spills have on freshwater systems, but given the negative effects observed in wildlife in marine environments, it is reasonable to assume that drinking oil-contaminated water would be detrimental to human health.[107]

There have been numerous disasters involving spills of the kind of petroleum product SPOT Terminal wishes to transport in the Project, many of which have caused billions of dollars in damage and unknown degradation to water quality and the environment. The analysis of spill risks in the DEIS contain numerous flaws and inconsistencies that seriously undermine the integrity of the analysis. Much information is missing about these risks, and evidence that the SPOT Project has measures in place to adequately guard against such a spill is lacking. The USACE must fully analyze the risk of oil spills from the Project. In addition, SPOT poses a very serious risk of an oil spill in sensitive marine and coastal ecosystems that serve as habitat for wildlife including federally protected and endangered and threatened species. The DEIS fails to assess adequately the significant risk of spills and erroneously concludes that the Project would not adversely affect protected species and their critical habitats.

Finally, the DEIS does not mention that the Applicant needs to receive from the General Land Office (GLO) a facility certificate from the GLO's Oil Spill Prevention and Response Program.[108] Specifically, GLO commented that the Applicant is required to develop and implement a discharge prevention and response plan for the facility and obtain a facility certificate for the large facility classification from the GLO's Oil Spill Prevention and Response

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[101] BUREAU OF OCEAN ENERGY MGMT., GULF OF MEXICO OCS REGION, CATASTROPHIC SPILL EVENT ANALYSIS: HIGH-VOLUME, EXTENDED-DURATION OIL SPILL RESULTING FROM LOSS OF WELL CONTROL ON THE GULF OF MEXICO OUTER CONTINENTAL SHELF, 1ST REVISION (2017).
[102] *Id.*
[103] *Id.*
[104] *Id.*
[105] *Id.*
[106] *Id.*
[107] Sumeep Bath, Exploring What Oil Spills Do to Fresh Water, INT'L INST. FOR SUSTAINABLE DEV. (Dec. 1, 2017), https://www.iisd.org/blog/exploring-what-oil-spills-do-fresh-water.
[108] DEIS at ES-18.

Program prior to any movement of product though any part of the system.[109] The Applicant must implement and maintain a facility discharge prevention and response plan at the facility at all times.[110] The requirements for this certificate can be found in Section 19.12 of Title 31 of the Texas Administrative Code.[111] At this time, it does not appear that Applicant has complied with these state requirements.

3. Cumulative Impacts Analysis

The purpose of the Proposed Action for this Project is to transport and export excess and available domestic crude oil supplies to the global market with reduced use of ship-to-ship transports.[112] To be approved, the applicant must show that the construction and operation of the DWP will be in the national interest and consistent with national security and other national policy goals and objectives, including energy sufficiency and environmental quality. 33 U.S.C. § 1503(c)(3). However, as the DEIS acknowledges oil can continue to be partially loaded shoreside and then fully loaded using offshore ship-to-ship transfers or other deepwater ports, could be, and have been proposed for the export of crude oil in the same area.[113]

At the time of the publication of the DEIS, there was already one existing DWP, the Louisiana Offshore Oil Port, and four proposed projects in the Gulf of Mexico, including Texas Gulf Terminals, Inc., Jupiter MLP, LLC, Bluewater Texas Terminal, LLC, and Texas GulfLink Holdings.[114] Moreover, two proposed onshore terminals along the Gulf of Mexico were identified for evaluation that would be capable of fully loading VLCCs, including the Lone Star Harbor Island Terminal and the Axis Harbor Island Marine Terminal.[115] The DEIS conclusorily concludes that the Proposed SPOT Project, even with other projects being considered, would not result in a major cumulative contribution to impacts on resources within the cumulative impact areas.[116] Given that MARAD's position is that all of these projects are supposedly necessary to support projected oil export volumes[117] and not knowing how many of these pending projects will be approved, the collective risk of the operation of all of these proposed facilities must be considered as part of the Federal Agencies' cumulative impacts analysis, which is was not.

SPOT is not needed here in the U.S. to secure domestic oil interests or supplies—the terminal will only facilitate the export of crude oil to European and Asian markets. In addition, experts assert that the COVID-19 pandemic has already slashed the global average demand of 100 million barrels per day by 30%.[118] The International Energy Agency (IEA) predicts that global oil production will decrease by 12 million barrels per day by the end of the year, 2.8

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[109] MARAD 2019-0011-0137.
[110] *Id.*
[111] *Id.*
[112] DEIS at ES-5.
[113] DEIS at ES-5.
[114] DEIS at ES-6, 3-281.
[115] DEIS at ES-6.
[116] DEIS at ES-25.
[117] DEIS at 1-10.
[118] Devika Krishna Kumar, *Drowning in Crude, U.S. Drillers Say Trump Strategic Reserve Plan is No Lifeline*, REUTERS (Apr. 23, 2020, 6:07 AM), https://www.reuters.com/article/us-global-oil-usa-reserves/drowning-in-crude-u-s-drillers-say-trump-strategic-reserve-plan-is-no-lifeline-idUSKCN2251QU

million barrels per day of which stemming exclusively from the United States.[119] That forecast puts the U.S. at the top of the list, cutting more than even Saudi Arabia.[120] Even further, the IEA's 2019 Sustainable Development Scenario predicts that global oil demand will dramatically decrease between now and 2040 – a 50% decrease in advanced economies and a 10% decrease in developing economies.[121] Therefore, if MARAD licenses SPOT, it will place the improbable profits of Enterprise ahead of the health and well-being of coastal communities like Freeport.

A 2016 analysis found that carbon emissions from developed reserves in currently operating oil and gas fields and mines would lead to global temperature rise beyond 2°C.[122] Excluding coal, currently operating oil and gas fields alone would take the world beyond 1.5°C.[123] To stay well below 2°C, the study recommends that "[n]o new fossil fuel extraction or transportation infrastructure should be built, and governments should grant no new permits for them" and that some fossil fuel fields "– primarily in rich countries – should be closed before fully exploiting their resources."[124] Based on these projections and recommendations, the proposed SPOT fossil fuel infrastructure project would only lock in massive oil and gas extraction for decades to come, putting the global environmental further at risk.

More recent studies corroborate these findings. For example, on November 3, 2017, the U.S. Global Change Research Program—comprised of the nation's top climate scientists—published a final report "designed to be an authoritative assessment of the science of climate change, with a focus on the United States, to serve as the foundation for efforts to assess climate-related risks and inform decision-making about responses."[125] Human-caused climate change has made a substantial contribution to the global average sea level rise of seven to eight inches since 1900.[126] Global average sea levels are expected to continue to rise—by at least several inches in the next 15 years and by 1–4 feet by 2100.[127] Sea level rise will be higher than the global average on the United States' Gulf coast, exacerbating coastal flooding in these regions.[128] Tidal flooding will continue increasing in depth, frequency, and extent this century.[129] The western Gulf of Mexico is already experiencing significant relative sea level (RSL) rise caused by the withdrawal of fossil fuels and groundwater.[130] Additionally, there is a projected increase in flooding along Gulf Coast states like Texas due to the increased intensity of hurricanes caused by climate change.[131] The report highlights the urgent need to act if we are to address climate change successfully. It finds that "[carbon dioxide ("CO2")] emissions are required to stay below about

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[119] Katherine Dunn, As Pain on the Shale Patch Deepens, U.S. Overtakes Saudi Arabia in Cutting Oil Production, FORTUNE (May 14, 2020, 5:25 AM), https://fortune.com/2020/05/14/shale-crisis-u-s-outcuts-saudi-arabia-oil-supply/

[120] *Id.*

[121] IEA (2019), World Energy Outlook 2019, IEA, Paris https://www.iea.org/reports/world-energy-outlook-2019

[122] Oil Change International, The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production at 5 (Sept. 2016).

[123] *Id.*

[124] *Id.*

[125] U.S. Global Change Research Program, Climate Science Special Report, at 1 (Nov. 4, 2017).

[126] *Id.* at 10.

[127] *Id.*

[128] *Id.*

[129] *Id.* at 27.

[130] *Id.* at 346.

[131] *Id.* at 349.

800 [gigatons of carbon (GtC)] in order to provide a two-thirds likelihood of preventing 3.6 [degrees Fahrenheit (°F)] (2°C) of warming."[132] It tells us how much more can be emitted until that limit is reached—approximately 230 GtC.[133] Therefore, according to the report, "[s]tabilizing global mean temperature to less than 3.6 [degrees Fahrenheit (2 degrees Celsius)] above preindustrial levels requires substantial reductions in net global CO2 emissions prior to 2040 relative to present-day values and likely requires net emissions to become zero or possibly negative later in the century."[134]

The DEIS itself discloses that that sea levels in the Gulf of Mexico, based on current models, could rise as much as 3 feet by 2100, which would contribute to a loss of wetland habitats, alteration of costal landscapes, coastal erosion and an increase of saltwater intrusion into freshwater sources.[135] Considering these extreme impacts already projected for the Project Area specifically, it is concerning that this Project would be allowed to move forward in a way that would put existing, threatened coastline at even more risk of degradation.

Increasing the odds of meeting these targets requires meeting even stricter carbon budgets.[136] Given that global emissions in 2014 alone totaled 10 GtC[137], humanity is rapidly consuming the remaining burnable carbon budget needed to have even a 66 percent chance of meeting the 2.0°C, let alone the 1.5°C, temperature increase limit. Continued development, like construction and operation of the SPOT Project to join the wealth of existing oil and gas infrastructure in the Gulf of Mexico, that would directly cause increased fossil fuel development and consumption will seriously hinder our ability to meet these goals and avoid the worst effects of climate change and is therefore not in the public interest.

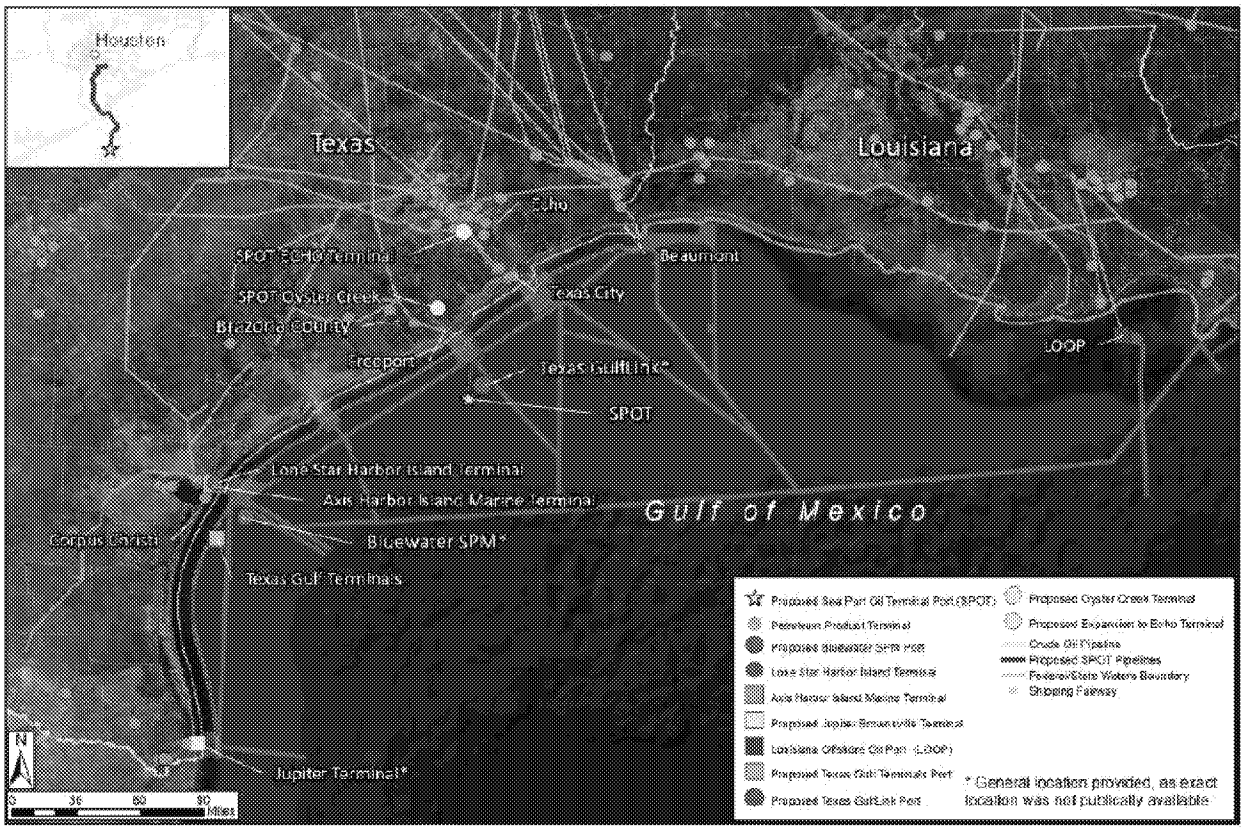
Table 3: Current Deepwater Port License Applications in the Gulf of Mexico[138,139]

Name of Deepwater Port	**Status**	**Location**	**Capacity**	**Projected VLCCs per year**[140]	**Type**
Louisiana Offshore Oil Port (LOOP)	APPROVED (Operational since 1981)	16 miles SE of Port Fourchon, LA	1.2 million barrels per day	72	Oil Import/ Export

[132] *Id.* at 31-32.
[133] *Id.* at 32.
[134] *Id.* at 31, 393.
[135] DEIS at 3-6.
[136] *See* M. Meinshausen *et al.*, *Greenhouse gas emission targets for limiting global warming to 2 degrees Celsius*, 458 Nature 1158-1162, 1159 (2009); Carbon Tracker Initiative, Unburnable Carbon 2013: Wasted capital and stranded assets.
[137] *See* CO2-Earth, Global Carbon Emissions, http://co2now.org/Current-CO2/CO2-Now/global-carbon-emissions.html.
[138] Approved Applications, U.S. DEP'T OF TRANSP. MAR. ADMIN., https://maritime.dot.gov/ports/deepwater-ports-and-licensing/approved-applications.
[139] *Pending Applications*, U.S. DEP'T OF TRANSP. MAR. ADMIN., https://maritime.dot.gov/ports/deepwater-ports-and-licensing/pending-applications.
[140] DEIS at 1-11, 2-62 to 2-65.

Delfin LNG	APPROVED (License Issuance Pending)	37-41 miles off the coast of Cameron Parish, LA	585 – 657.5 million standard cubic feet per day	Not disclosed in DEIS	LNG Export
Gulf Gateway Energy Bridge	APPROVED (Operational since 2004; Decommissioned in 2013)	116 miles off the coast of LA	500 million standard cubic feet per day	0	LNG Import
Bluewater	PENDING (regulatory timeline suspended)	15 miles off the coast of San Patricio County, TX	1.92 million barrels per day	192	Oil Export
Texas GulfLink	PENDING (regulatory timeline resumed)	28.3 miles off the coast of Brazoria County, TX	1 million barrels per day	180	Oil Export
West Delta LNG	PENDING (regulatory timeline suspended)	10.5 miles off the coast of Plaquemines Parish, LA	750 – 900 million standard cubic feet per day	Not disclosed in DEIS	LNG Export
Sea Port Oil Terminal (SPOT)	PENDING (regulatory timeline resumed)	27.2 -30.8 miles off the coast of Brazoria County, TX	2 million barrels per day	365	Oil Export

Figure 8: Cumulative Projects Considered[141]



The production, processing, and combustion of the crude oil associated with the SPOT export project would emit significant greenhouse gas emissions, exacerbating climate change. Climate change is a serious threat locally as gulf waters rise and flood the region and extreme storms ravage communities. The determination of the public interest required by this environmental review must consider the SPOT Project in the context of climate change. The SPOT DWP would have the capability of loading VLCCs and other crude oil carriers at a rate of 85,000 barrels per hour, or 2 million barrels per day, 365 days a year.[142] As described in Table 3 above and mapped in Figure 8 above, the SPOT Project is one of several proposed and approved projects in the Gulf of Mexico designed for crude oil and natural gas export that would lock in fossil fuel development for decades to come, thereby exacerbating the impacts of climate change. These impacts would be felt globally as well as locally. Thus, the Federal Agencies must take into account the cumulative impacts of the numerous other existing and proposed oil and gas infrastructure projects in the Gulf when making its public interest determination as to the addition of the SPOT Project. Here, the DEIS fails to fully consider the emissions impacts of increasing oil production and end use combustion. The SPOT Project will dramatically increase the capacity of the Gulf Coast oil and gas network, and that will be a huge step in the wrong direction to reduce the already projected impacts of climate change. .

[141] DEIS at 2-63, Figure 2.4-1; *see also* DEIS at 5-15, Figure 5.2-1 (additional view of projects in the area).
[142] DEIS at 4-26

The coastal communities impacted by this project are at ground zero for the cumulative impacts of climate change, including sea level rise and loss of critically protective wetlands. The Texas coastline is eroding at an average rate of 2 to 10 feet per year, and Freeport is experiencing sea level rise at a rate of 17 inches per 100 years. As already acknowledged in the DEIS,[143] hurricanes in the Gulf of Mexico are expected to increase in severity, with an increased proportion of category 3, 4, and 5 storms, a ten percent increase in cyclone damage for the most intense hurricanes, and a 30-40 percent increase in precipitation, which would exacerbate flooding in these regions.[144] Sea level rise has already cost Texas homeowners over $76 million in potential property value.[145] A project that would cause or worsen these impacts undermines the public interest. The reviewing Federal Agencies must therefore make a determination that the SPOT Project is not in the public interest. At the very least, a public interest determination must consider "[t]he relative extent of the public and private need" for the project, 33 C.F.R. 320.4(a)(2)(i), in light of climate change and the urgent need to rapidly transition to clean, sustainable energy sources.

4. Local Opposition from Freeport Residents and other Brazoria County Coastal Communities

The USACE should deny the CWA Section 404 Permit because the SPOT Project is not in the public interest. Pursuant to the USACE's regulations implementing the CWA and Section 10 of the Rivers and Harbors Act, the "decision whether to issue a permit will be based upon an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest." 33 C.F.R. § 320.4(a)(1). Determining that the Project is in the public interest requires weighing its benefits against its costs. *Nat'l Parks Conservation Ass'n v. Semonite*, 311 F. Supp. 3d 350, 377 (D.D.C. 2018). Here, SPOT Terminal has failed to provide the Federal Agencies with the information needed to make that determination. Indeed, as is discussed above there is evidence that there are numerous significant impacts that will result from the Project. Based on this record, the USACE cannot find that the Project is in the public interest, particularly given that the Project is not needed, is not responding to actual demand for oil, would have extremely significant climate change impacts, and puts Texas' waterways at risk from oil spills.

The public interest review is intentionally broad and should include all relevant issues that could impact the environment, human health, and natural resources. The USACE's regulation instructs:

> Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome

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[143] DEIS at 3-6.

[144] Bruyère, C. L., and Coauthors, 2017: *Impact of Climate Change on Gulf of Mexico Hurricanes*. NCAR Technical Note NCAR/TN-535+STR, 165 pp, doi:10.5065/D6RN36J3

[145] Trevino, Perla, *Study: Sea Level Rise Causes Texas Coastal Homeowners To Lose Millions In Potential Property Value*, HOUSTON CHRONICLE

> of this general balancing process. That decision should reflect the national concern for both protection and utilization of important resources.

33 C.F.R. § 320.4(a)(1). The USACE's regulations include a non-exhaustive list of factors that may be relevant for each individual project. 33 C.F.R. § 320.4(a)(1) states in part:

> All factors which may be relevant to the proposal must be considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

Consistent with the mandate that the USACE consider "all those factors that become relevant," this non-exhaustive list of factors includes issues beyond those directly related to the impacts of in-water work. 33 C.F.R. § 320.4(a)(1). In other words, by requiring an analysis of "cumulative impacts" and by including a non-exhaustive, far-reaching list of factors, the USACE is clearly required to conduct a broad analysis of the public interest that captures all relevant impacts associated with the project and not just those that result directly from the permitted activities.

Local opposition from areas like Jones Creek to additional industrial development in these residential and environmentally sensitive areas should not be ignored. Just last year, in Jones Creek, a community 11 miles from Freeport, a group of residents, concerned about a proposed 13-tank storage farm associated with the Texas GulfLink Project's DWP successfully forced the company to relocate its proposed operations away from existing residential developments in the area. Similarly, even in the midst of an unprecedented global pandemic, public opposition has been gathering to SPOT's planned onshore improvements between Lake Jackson and Surfside Beach and the potential impacts on smaller, local, coastal communities.

With respect to the planned tank farm at the Oyster Creek Terminal, featuring seven oil storage tanks, the risk of fires at these types of facilities is of concern, particularly after last year's month-long fire and response event at Intercontinental Terminal Company (ITC)'s Deer Park tank farm facility just one county away. The DEIS mentions the adverse impacts on visual impacts, land use, air quality, and noise.[146] In addition, drainage and flooding have been known issues at these type of facilities, particularly after reviewing the impacts of Hurricane Harvey on tank farms. This Project unadvisedly situates its proposed tank farm in a 500-year flood zone.[147] In addition, the residential neighborhoods in Oyster Creek are already situated nearby the Freeport LNG Pretreatment Plant in the area, which is a heavy producer of methane. Moreover, the proposed oil storage tank facility for this Project on FM 523 will be nearby the existing Seabreeze Environmental Landfill.[148] The Seabreeze Environmental Landfill in Brazoria County is a Type 1 solid waste facility that is permitted by the TCEQ. The facility has Permit No. MSW-

[146] DEIS at 3-376, 5-36.
[147] DEIS at ES-8.
[148] DEIS at 2-5, 3-241, 3-377.

1539A, as well as, all required air permits and storm water discharge permits. Adding a tank farm to this area will just add to already existing environmental burdens to the local residents of the area. Considering these cumulative impacts together, the profile of an environmental justice community emerges, comprised of at least two environmental justice block groups living within a mile of the Oyster Creek Terminal.[149]

Like these other local communities in Brazoria County, the residents of Freeport are closely connected to their natural environment, spending a large amount of time in the Gulf, on its beaches, and breathing the air. Therefore, because these residents of Freeport have a greater than average exposure to the environment, the Project poses a great risk to the health and welfare of the residents of Freeport.

The local economy of Freeport is highly dependent upon the preservation of the natural environment compared to the statements in the DEIS seeking to minimize these impacts by reviewing the economic impacts on a county-wide basis as opposed to focusing on the local coastal communities impacted.[150] An oil spill or other contamination of the local environment will hurt the local economy and could inflict lasting economic injury, resulting in the financial ruin of many local businesses that might not be able to recover. The conclusion that Project's impacts to economic activity related to onshore recreation and tourism would be "negligible" seems to discount these risks too severely.[151] The DEIS could not even complete its thought regarding such a catastrophe:

> "Large oil spill: while the potential for a large spill to occur is small (see Chapter 4, Safety), a large oil spill during the Project operation would have."[152]

Further, the inherent risk of oil spills from projects like SPOT is heightened by climate change. In addition to rising sea level, increased flooding, and increased intensity of hurricanes—all of which could increase the likelihood of damaging the project infrastructure and result in spills—climate change will likely make recovery from oil spills significantly harder. With ocean warming and acidification caused by climate change, the use of biomarkers to monitor environmental responses to pollutants, like those coming from oil spills, will be less accurate as many commonly used organisms used to monitor oil spill impacts may no longer be available due to species loss or migration, or change in species behavior.[153] This risk is not adequately addressed by the company's development plan. The irreparable effects a spill could have on the Gulf of Mexico aquatic and coastal environment, a region already impacted by past spills like the Deepwater Horizon disaster in 2010, underscore the inadvisability of both onshore and offshore oil export development. Issuing a permit for the SPOT Project is therefore not in the public interest.

Other local considerations for Freeport residents include the impacts to road and traffic in the area, particularly as the Project proposes to rely heavily on FM 523, one of the main

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[149] DEIS at 3-376, 5-36.
[150] DEIS at 3-355 to 3-357.
[151] DEIS at 3-358.
[152] DEIS at 3-359.
[153] Hartl, Mark, *Why Climate Change is Making it Harder to Monitor Marine Pollution*, The Conversation (Sept. 25, 2018), http://theconversation.com/why-climate-change-is-making-it-harder-to-monitor-marine-pollution-102672.

thoroughfares from Angleton to Freeport, for the travel of personnel, goods and supplies in and out of Port Freeport.[154] The DEIS at least acknowledges that these traffic impacts, yet-to-be-determined in a traffic study to be completed by the Applicant "could be major."[155] In addition to increased, unwanted traffic on this already heavily traveled road, these impacts may negatively affect the local community's ability to maintain the roads and increase road maintenance costs due to expanding use from traffic due to pipeline construction and boring under the roads for the pipelines. As the DEIS already notes, Port Freeport already experiences large increases in road traffic when vessels are being loaded and unloaded and commodities transported out of the area.[156] Regular traffic patterns, including daily commuting in and out of existing industrial and petrochemical complexes, already impact traffic during shift changeovers and during construction projects to the detriment of local residents.[157] While the DEIS attempts to quantify the potential impacts to local roads,[158] it provides no solutions to local communities on how these "direct, adverse" impacts will be mitigated during both construction and operation of the Project. Because Applicant has not completed the traffic study needed, it should be required and published for public comment and review as part of a supplemental DEIS to determine how severe these impacts will be on communities like Freeport and what may be needed.

Figure 9: Showing Enlargement of Important Transportation Routes near Freeport[159]

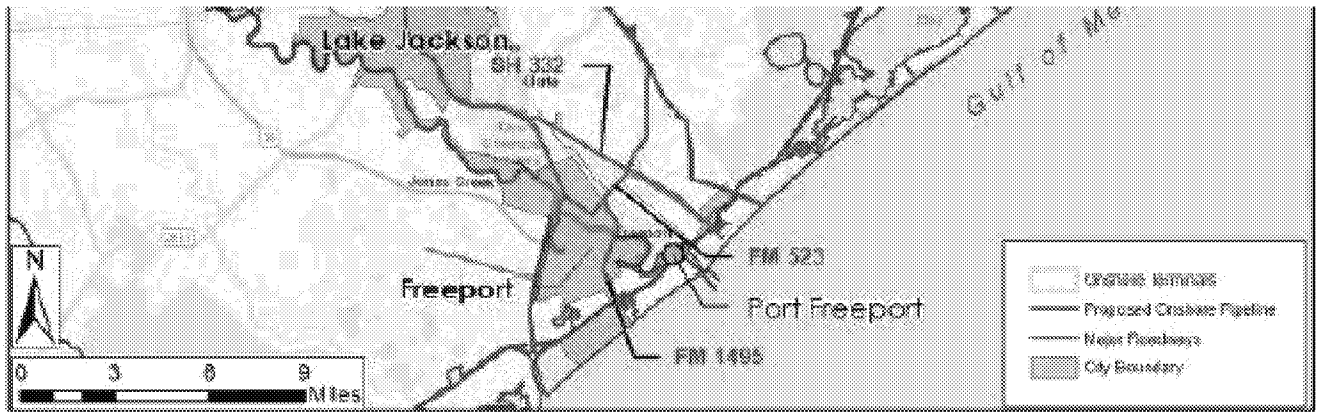

Figure 3.11-1: Transportation Study Area

While the DEIS talks generally about the "benefits" that Port Freeport,[160] one of the 10 busiest ports in Texas, will receive in having this Project move forward,[161] the reality is that the Project is directly competitive with Port Freeport's ability to service smaller vessels, like the Aframax crude oil carrier,[162] and merely provides duplicative docking options for these vessels. Port Freeport is currently in the middle of a massive Federally-funded dredging, improvement

[154] DEIS at 3-268.
[155] DEIS at 3-375; *see also* DEIS at 5-30 (describing cumulative impacts).
[156] DEIS at 3-270.
[157] DEIS at 3-270.
[158] DEIS at 3-272 to 3-273.
[159] DEIS at 3-269 (enlargement of Figure 3.11-1).
[160] DEIS at 3-365.
[161] *See, e.g.,* DEIS at 30 (discussing service vessels and helicopters).
[162] DEIS at 2-29, 3-365.

and expansion project for the Freeport Harbor Channel, which will allow it to accommodate the Aframax vessels (with a draft of 49 feet) once its improvements are completed in 2026.[163]

5. Impacts on Local Beaches including Bryan Beach in Freeport

For purposes of evaluating the Project's impacts with respect to recreation, MARAD and the USCG must evaluate, among other things, whether this Project may: (1) interfere with access to coastal recreational shorelines or waterways (minor to moderate, depending on extent), (2) cause the loss or displacement of an important recreational resources, such as recreational fishing sites or other water-dependent recreational activities (minor to major, depending on extent), and (3) degrade recreational value, as established in applicable public agency management plans or policies (minor to moderate, depending on extent).[164] Importantly, the DEIS does not discuss the potential impacts on several local beaches and recreational areas near the Project area that could be negatively impacted.

For example, Bryan Beach (TX Beach ID TX384318), maintained by the City of Freeport, is an important recreational asset for the area shown in Figure 10 below as a three-mile green strip along the coast south of Freeport between the opening of the Brazos River and the entrance to the Freeport Harbor Channel, fronting the Gulf of Mexico. Bryan Beach was not identified by name in Figure 3.10.4-1 of the DEIS highlighting Regional Recreation Resources near Freeport, Texas.[165]

According to the Texas State Historical Association, Bryan Beach is an 878-acre park acquired by purchase from private owners in 1973.[166] Bryan Beach is named for James Perry Bryan, who built a home there in 1881 and operated a store at nearby Peach Point. The natural features of this undeveloped beach include sand dunes, some up to ten feet in height, and a wide variety of coastal vegetation, including various grasses, shrubs, and forbs. Reports of native animals inhabiting the beach include ground squirrels, gophers, grasshopper mice, rice rats, cotton rats, rabbits, and opossums. Bird watching for shorebirds, waterfowl and other migratory birds is also popular.

Bryan Beach is the closest "natural" beach in proximity to residents of Freeport and an important focus of the City's future land use planning for the area.[167] Specifically, the Economic Development Committee of Freeport is considering investing to improve the beach to add a lifeguard station and other amenities not only to attract tourists, but also residents to Freeport. Characterizing recreation and tourism as "minor economic drivers", when considering all of Brazoria and southern Harris County,[168] the DEIS dramatically understates the importance of these economic activities to coastal towns like Freeport with breach access and other regional

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[163] DEIS at 3-364, 5-13, 5-18.
[164] DEIS at 3-4.
[165] DEIS at 3-249.
[166] Texas State Historical Association Online, Bryan Beach State Recreation Area, https://tshaonline.org/handbook/online/articles/gkb11
[167] City of Freeport, Texas, Strategic Community Plan, The Future City Report (Jan. 2019). https://www.freeport.tx.us/upload/page/0121/docs/Freeport%20SCP%20-%20The%20Future%20City%2001.29.19%20r.pdf .
[168] DEIS at 3-355.

attractions.[169] Commonly used by recreational fisherman and local beach goers in the area, the beach's proximity to the Project, particularly if there is some adverse effect caused by an oil spill, could jeopardize recreational opportunities at this popular local beach for years to come.

Because of the region's temperate weather, swimming season at the beach is year round and its topography of soft sand makes it the perfect beach for kite flying or sunbathing. Bryan Beach offers free primitive tent camping for up to two weeks at a time.

Figure 10: Bryan Beach Park

Recreational fishing is also popular on Bryan Beach and in this area fronting the Gulf of Mexico generally. The economic impact of these recreational opportunities to local economics should not be taken for granted. Recreational fishing sales in Texas total approximately $2 billion, which is the second largest national sales impact after west Florida.[170]

[169] DEIS at 3-355.
[170] DEIS at 2-350.

Figure 11: Map of Coastal Recreational Park Areas and Natural Areas near Freeport, Texas

Unfortunately, as reported by the EPA's Beach Advisory and Closing On-Line Notification service, Bryan Beach already has existing, ongoing contamination alerts issued every year due to elevated levels of bacteria in the water.[171] In 2019, there were 38 contamination action alerts issued for a total of 81 days. In 2018, 4 action alerts were issued covering 12 days. Similar patterns of closures for five to eleven days happened from 2014 to 2017 for elevated bacteria levels.

In addition, given the natural tidal flow, which can be up to 5 knots up the Intercoastal Waterway in this area, a pipeline breach could result in crude oil being carried deep into the marshes in Brazoria National Wildlife Reserve as well as into Drum Bay and Christmas Bay.

Moreover, the Project neglects to account for the Texas Open Beaches Act of 1959 (OBA) and the subsequent Constitutional Amendment passed by voters on Nov. 3, 2009, that established "the right of the public, individually and collectively, to access and use the public beaches bordering the Gulf of Mexico."[172] Here, the Project is silent regarding the OBA and contains no information regarding how the public's ability to access the public beaches after implementation will be impacted. This constitutional right of access, however, remains critical because the OBA's public policy promoted unfettered public use of all state owned beaches and

[171] EPA, BEACON - Beach Advisory and Closing On-line Notification for Bryan Beach, https://ofmpub.epa.gov/apex/beacon2/f?p=116:37:::NO::P37_BEACH_ID,P37_EFFECTIVE_YEAR_PARAM:TX384318,2019

[172] TEX. NAT. RES. CODE § 61.011 (a).

the right to access those beaches through the dry beach provided "the public has acquired an easement by prescription, dedication or by continual use."[173] To the extent that public beaches become damaged by this Project, it violates the constitutional rights of Texas to these recreational areas. Further, the mitigation efforts described in the DEIS are insufficient to put these natural assets at risk, knowing that the DWPA limits the Applicant's liability to $350,000,000 in the event of an oil spill. 33 U.S.C. § 2704.

While the DEIS acknowledges that the Project's effects on local recreational resources have been evaluated based on their potential to interfere with access to coastal recreational shorelines or waterways, cause the displacement of an important recreational resource, or degrade recreational value,[174] it ultimately does not evaluate or mention the real risk of oil spills either during construction or operation of the Project as part of the potential impacts to the recreational value of this area. Thus, its ultimate assessment that impacts will merely be "negligible impacts" does not accurately quantify the real risk to these pristine natural areas in this region used for recreation.

6. Concerns about the Lax Regulation of the Operations of Existing Deepwater Ports and Applicant's Compliance History

On January 17, 1977, the Secretary of Transportation issued a deepwater port license to the Louisiana Offshore Oil Port (LOOP). Currently, LOOP is the only deepwater port petroleum terminal in existence within the United States. LOOP is located 16 miles southeast of Port Fourchon, Louisiana in the Gulf of Mexico. LOOP was built by a group of major oil and pipeline companies, and has been operational since May 5, 1981, handling over 12 billion barrels. It serves as a distribution port for supertankers importing and exporting oil to and from the Gulf region. LOOP is the only port in the U.S. capable of offloading a wide range of vessels including Ultra Large Crude Carriers (ULCC) and Very Large Crude Carriers (VLCC) down to Medium Range (MR) Tankers.

The regulatory history of LOOP's operations since 1981 raises concerns about the approval of additional deepwater ports in the Gulf of Mexico. The LOOP has been operating without proper permits, such as a Title V air permit and with a NPDES permit that expired in 2013, but has been administratively continued. While LOOP had conducted in-situ monitoring of its brine discharges and determined there was no environmental impact to benthos, the EPA has disagreed with the facility because the discharges from LOOP are concerning because they are fairly toxic due to their high salinity (318,500 ppm TDS). These regulatory lapses related to LOOP create concern for the regulatory oversight of other deepwater ports like SPOT.

The DWPA currently defines a deepwater port as "any fixed or floating manmade structure other than a vessel, or any group of such structures, that are focused beyond State seaward boundaries and that are used or intended for use as a port or terminal for the transportation, storage or further handling of oil or natural gas for transportation to or from any State, except as otherwise provided in Section 1522 of this title, and for other uses not

[173] TEX. NAT. RES. CODE § 61.011 (a).
[174] DEIS at 3-251.

inconsistent with the purposes of this chapter, including transportation of oil or natural gas from the United States outer continental shelf." 33 U.S.C. § 1052(9)(A).

In the past, LOOP has taken positions that it was not required to have an NPDES permit despite the EPA's determination that the Clean Water Act's "vessel or other floating craft exclusion" doesn't apply to discharges when the vessel is operating in a capacity other than a means of transportation or secured to a storage facility. Moreover, EPA also considers vessels docking at a deepwater port to be stationary sources under the Clean Air Act.

CFCA&CW is encouraged that the DEIS discloses that on January 31, 2019, the Applicant filed with the EPA a draft National Pollutant Discharge Elimination System Permit and a draft Title V permit application required under the Clean Air Act.[175] In addition, the EPA and/or the TCEQ should also have to issue PSD air permits for the DWP and NRSP for Oil and Gas Handling Production Facilities for the Oyster Creek Terminal.[176] Because these permit applications have not yet been reviewed fully by the EPA or its delegate, it is difficult to determine whether wastewater discharge outfalls will affect critical areas, as defined in 31 TEX. ADMIN. CODE § 501.3, without reviewing the permit applications.

There are statements in the DEIS that suggest that discharges associated with SPOT's operations the Gulf of Mexico would have direct, adverse, short-term, negligible impacts on water quality such as corrosion inhibitors[177] and VLCC discharges.[178] The information provided in the DEIS about these adverse impacts is inadequate. The DEIS should specifically address the impacts and the protective measures that are being taken by SPOT to prevent impacts to water quality.

Finally, the company that owns SPOT Terminal has a deplorable record of spills, making the risk of damage even more likely. SPOT Terminal Services LLC is a wholly-owned subsidiary of Enterprise Products Operating LLC.[179] Enterprise Products Operating LLC is a subsidiary of Enterprise Products Partners, L.P. (hereinafter, Enterprise).[180] Enterprise is a large oil and gas pipeline parent company with a history of repeated pipeline failures and environmental violations. Between 2010 and 2016, 521 pipeline operators reported releases in the United States.[181] Of those operators, the top two with the most reported incidents were Enterprise Crude Pipeline LLC, another subsidiary of Enterprise,[182] and Enterprise Product Operating LLC (see excerpted table below).[183] Combined, they reported a total of 360 pipeline incidents during those seven years.[184]

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[175] DEIS at ES-3.
[176] DEIS at 1-16.
[177] DEIS at 3-60.
[178] DEIS at 3-65.
[179] DEIS at ES-1.
[180] Enterprise Product Partners L.P., Annual Report (Form 10-K), Ex. 21.1, (Feb. 1, 2020).
[181] Matt Kelso, BA, *Updated Pipeline Incident Analysis*, FRACTRACKER ALLIANCE (Nov. 23, 2016), https://www.fractracker.org/2016/11/updated-pipeline-incidents/.
[182] Enterprise Product Partners L.P., Annual Report (Form 10-K), Ex. 21.1, (Feb. 1, 2020).
[183] Matt Kelso, BA, *Updated Pipeline Incident Analysis*, FRACTRACKER ALLIANCE (Nov. 23, 2016), https://www.fractracker.org/2016/11/updated-pipeline-incidents/.
[184] *Id.*

Operator	Incidents	Miles	Incidents per 100 Miles
Enterprise Crude Pipeline LLC	183	3,738	4.9
Enterprise Products Operating LLC	177	26,946	0.7
Sunoco Pipeline LP	172	5,774	3
Plains Pipeline; LP	150	9,209	1.6
Magellan Pipeline Company; LP	136	10,954	1.2
Colonial Pipeline Co.	130	5,599	2.3
Buckeye Partners; LP	106	6,645	1.6
Pacific Gas & Electric Co.	96	49,028	0.2
Kinder Morgan Liquid Terminals; LLC	83	88	93.9
Marathon Pipe Line LLC	82	5,694	1.4

Figure 5: This table shows the ten operators with the most reported incidents, along with the length of their pipeline network.

Enterprise and its subsidiaries have a history of pipeline incidents that does not engender confidence in Enterprise's ability to prevent incidents at the SPOT Project. For instance, in 2012, a crude oil facility operated by Enterprise Crude Pipeline LLC experienced a breakout tank line failure due to internal corrosion in one of its underground pipes, which resulted in over $1.5 million in property damage.[185] Operations personnel did not notice the leak, which released 600 bbl of crude oil, until a day later when oil was seen bubbling from the ground.[186] Investigations revealed that one of the main contributing factors to the internal corrosion was the company's failure to have *any* cleaning (called "pig operations") or maintenance operations in place "to ensure the hygiene of these lines against internal corrosion."[187]

In another instance, Enterprise Products Operating LLC operators at one of its oil pipeline facilities in Texas failed to notice that crude oil was spraying up to 15 feet in the air until a citizen alerted the local fire department.[188] In the span of approximately two hours, an estimated 230 bbl of crude oil was released.[189] Investigations determined that all four cap screws in an electrical pressure switch had failed due to hydrogen stress cracking.[190] Had a citizen not reported the leak, the oil spill could have been far greater.

Enterprise is also no stranger to law enforcement. Since 2000, Enterprise has paid over 16 million dollars in penalties for violations.[191] Over half of the violations were for environmental offenses.[192] The offenses include Clean Water Act violations,[193] Clean Air Act stationary source

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[185] Failure Investigation Report – Enterprise Crude Pipeline, LLC (Cushing West Tank Farm, Cushing, OK, Line C75) (Feb. 3, 2014), *available at* https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enterprise_West_Tank_Farm_Cushing_OK_04082012_%5BRedacted_for_Internet%5D.pdf.

[186] *Id.* at 5.

[187] *Id.* at 11.

[188] Memorandum for Incident Report – Enterprise Products Operating LLC, at 1 (Sept. 29, 2010), *available at* https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enterprise%20HL%20TX%202009-12-23.pdf.

[189] *Id.* at 1–2.

[190] *Id.*, Appendix E, Metallurgical Evaluation Report, at 1-3.

[191] GOOD JOBS FIRST, Violation Tracker Parent Company Summary for Enterprise Products Partners, https://violationtracker.goodjobsfirst.org/prog.php?parent=enterprise-products-partners&order=pen_year&sort=asc&page=1.

[192] *Id.*

violations,[194] and pipeline safety violations including failures by Enterprise to, *inter alia*, properly train its field technicians,[195] inspect facility equipment,[196] conduct post-accident investigations,[197] and create procedures to ensure pipeline repairs.[198] In one of its most egregious violations, TE Products Pipeline Company, LLC and TEPPCO Crude Pipeline, LLC (both subsidiaries of Enterprise)[199] agreed to pay a $2.865 million penalty to resolve Clean Water Act violations from four different occasions that, in total, discharged approximately 6,470 bbl of jet fuel, gasoline, and crude oil into waters of the United States.[200]

A company that has a repeated track record for failing to abide by the environmental and human health safety laws in place for this highly regulated, high-risk industry should not be entrusted to minimize and prevent injury and harm to environmental resources or the community, especially for a project of this magnitude.

7. Air Quality Impacts from the Project

For purposes of reviewing the environmental impacts of the Project with respect to air quality, MARAD and the USCG must evaluate, among other things, whether this Project may: (1) cause or contribute to a violation of National Ambient Air Quality Standards (NAAQS), (2) cause an adverse impact on air quality-related values in a Class 1 area, (3) expose sensitive

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[193] *E.g.*, GOOD JOBS FIRST, Violation Tracker Individual Record TE Products Pipeline Company, LLC and TEPPCO Crude Pipeline, LLC, https://violationtracker.goodjobsfirst.org/violation-tracker/-te-products-pipeline-company-llc-and-tep (penalty of $2.865 million, Aug. 16, 2007).

[194] *E.g.*, GOOD JOBS FIRST, Violation Tracker Individual Record Enterprise Products OP- Jackrabbit CS, https://violationtracker.goodjobsfirst.org/violation-tracker/co-enterprise-products-op-jackrabbit-cs-0 (penalty of $90,200, Jan. 22, 2014); GOOD JOBS FIRST, Violation Tracker Individual Record Enterprise Gas Proc – Meeker Gas Plant, https://violationtracker.goodjobsfirst.org/violation-tracker/co-enterprise-gas-proc-meeker-gas-plant-1 (penalty of $324,750, Oct. 11, 2011); GOOD JOBS FIRST, Violation Tracker Individual Record Enterprise Products OP-Jackrabbit CS, https://violationtracker.goodjobsfirst.org/violation-tracker/co-enterprise-products-op-jackrabbit-cs (penalty of $252,350, Sept. 29, 2011);

[195] Notice of Probable Violation and Proposed Civil Penalty, CPF No. 4-2013-5018, at 5-6, 8 (May 1, 2013), *available at* https://primis.phmsa.dot.gov/comm/reports/enforce/documents/420135011/420135011_NOPV%20PCP%20PCO_05012013.pdf (issuing a notice to Enterprise's subsidiary and assessing a preliminary penalty of $26,200 for its failure to ensure its field technicians performing tasks had the necessary knowledge and skills required under law).

[196] *Id.* at 6, 8 (issuing a notice to Enterprise's subsidiary and assessing a preliminary penalty of $51,200 for its failure to properly inspect the cathodic protection system of breakout tanks for three years to prevent external corrosion).

[197] *Id.* at 4, 8 (issuing a notice to Enterprise's subsidiary and assessing a preliminary penalty of $28,700 for its failure to follow its operations and maintenance procedures for conducting post-accident investigations).

[198] Final Order, In the Matter of: Enterprise Products Operating, LLC, CPF No. 4-2013-5018 (June 25, 2014), *available at* https://primis.phmsa.dot.gov/comm/reports/enforce/documents/420135018/420135018_Final%20Order_06252014.pdf (assessing a penalty of $100,000 against Enterprise's subsidiary); Notice of Probable Violation and Proposed Civil Penalty, CPF No. 4-2013-5018 (Sept. 20, 2013), *available at* https://primis.phmsa.dot.gov/comm/reports/enforce/documents/420135018/420135018_NOPV%20PCP_09202013.pdf (issuing a notice to Enterprise's subsidiary for its failure to follow its own procedures to create a job plan for pipeline repairs following an accident. This failure was a contributing factor that resulted in a second accident that injured three workers.).

[199] GOOD JOBS FIRST, Violation Tracker Individual Record TE Products Pipeline Company, LLC and TEPPCO Crude Pipeline, LLC, https://violationtracker.goodjobsfirst.org/violation-tracker/-te-products-pipeline-company-llc-and-tep.

[200] EPA, *TEPPCO agrees to over $2.8 million settlement for clean water violations* (Aug. 16, 2007), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/8cb4de3a271c66238525733700515eb4.html

receptors to substantially increased pollutant concentrations (minor to major, depending on extent), (4) increase emissions of criteria pollutants beyond limits allowed under Clean Air Act regulations (major), and (5) substantially increase the emissions of greenhouse gasses (minor to moderate, depending on extent).[201]

Much of the Project is being built in an area of Texas that has been designated as "non-attainment" for ozone pollution.[202] The Houston-Galveston-Brazoria Non-attainment area is so designated because ozone pollution regularly reaches or exceeds levels deemed unsafe for human health. As part of the NEPA review process, the Federal Agencies must demonstrate that the Project will conform to the State Implementation Plan (SIP) to bring that ozone pollution under control.

The Clean Air Act's General Conformity Rule requires Federal Agencies to ensure that proposed actions do not cause or contribute to any new air quality standard violations, increase the frequency or severity of any existing standard violation, or delay the timely attainment of any standard, interim emission reduction, or other milestone. *See* 42 U.S.C. § 7506(c)(1); 40 C.F.R. § 51.850–51.860, 40 C.F.R. § 93.150–93.160. The DEIS acknowledges that the Project's operations will have adverse long-term impacts on air quality.[203] Specifically, the total annual emissions of nitrogen oxides (NOx) from the construction of onshore and offshore project triggers the determination requirement under the General Conformity Rule.[204] The MARAD docket reflects that TCEQ has found that the project conforms to the Texas SIP, but TCEQ further suggested several pollution prevention measures that should be required as mitigation for this Project.[205] Specifically, TCEQ suggested that the Project adopt the following pollution prevention and/or reduction measures:[206]

- Encourage construction contractors to apply for Texas Emissions Reduction Plan grants;
- Establish bidding conditions that give preference to contractors who proactively limit air pollutant emissions and idling of construction vehicles;
- Direct construction contractors to exercise air quality best management practices such as fueling vehicles late in the day during ozone season;
- Direct contractors and operators to use newer, lower emissions vehicles and equipment whenever possible;
- Select equipment based on lowest NOx emissions instead of lowest price; and
- Purchase and permanently retire surplus NOx offsets prior to commencement of operations.

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[201] DEIS at 3-4.
[202] DEIS at 3-295; 5-32.
[203] DEIS at 3-378.
[204] DEIS at 3-312, 5-32.
[205] MARAD-2019-0011-0155.
[206] *Id.*

CFCA&CW agree that all of these recommendations by TCEQ should be adopted for this Project and made conditions of the permit license, if possible.

8. Compliance with the Texas Coastal Management Program

Adjacent coastal states, acting through their governors, have a veto power over all Deepwater Port Act projects. 33 U.S.C. § 1503(c)(8). Moreover, states must also demonstrate compliance with the Coastal Zone Management Act. 33 U.S.C. § 1503(c)(9). The Coastal Zone Management Act calls for the "effective management, beneficial use, protection and development" of the nation's coastal zone and promotes active state involvement in achieving these goals.[207] In Texas, the Texas General Land Office must issue a determination that the Project is consistent with the Coastal Zone Management Act (CZMA) in coordination with the CWA Section 404 Permit authorization from the USACE.[208]

Section 501.12 of Title 31 of the Texas Administrative Code states the goals of the Texas Coastal Management Program (TCMP) are:

> (1) to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas (CNRAs);
>
> (2) to ensure sound management of all coastal resources by allowing for compatible economic development and multiple human uses of the coastal zone;
>
> (3) to minimize loss of human life and property due to the impairment and loss of protective features of CNRAs;
>
> (4) to ensure and enhance planned public access to and enjoyment of the coastal zone in a manner that is compatible with private property rights and other uses of the coastal zone;
>
> (5) to balance the benefits from economic development and multiple human uses of the coastal zone, the benefits from protecting, preserving, restoring, and enhancing CNRAs, the benefits from minimizing loss of human life and property, and the benefits from public access to and enjoyment of the coastal zone;
>
> (6) to coordinate agency and subdivision decision-making affecting CNRAs by establishing clear, objective policies for the management of CNRAs;
>
> (7) to make agency and subdivision decision-making affecting CNRAs efficient by identifying and addressing duplication and conflicts among local, state, and federal regulatory and other programs for the management of CNRAs;
>
> (8) to make agency and subdivision decision-making affecting CNRAs more effective by employing the most comprehensive, accurate, and reliable information and scientific data available and by developing, distributing for public comment, and maintaining a

[207] DEIS at 1-21.
[208] DEIS at 6-1.

coordinated, publicly accessible geographic information system of maps of the coastal zone and CNRAs at the earliest possible date;

(9) to make coastal management processes visible, coherent, accessible, and accountable to the people of Texas by providing for public participation in the ongoing development and implementation of the Texas CMP; and

(10) to educate the public about the principal coastal problems of state concern and technology available for the protection and improved management of CNRAs.

31 TEX. ADMIN. CODE § 501.12. For the reasons explained throughout those comments, CFCA&CW has concerns that the Project is inconsistent with the Texas CMP and directly contradicts the goals and objectives of this program. Moreover, section 6, on Coastal Zone Consistency, the DEIS fails to identify what areas are included in the Texas Coastal Management Program Boundary, which is found in Section 501.1 of Title 31 of the Texas Administrative Code. Again, it is unclear from reviewing the DEIS what impacts that CFCA&CW should be concerned about within this defined boundary.

In addition to the Texas CMP requirements, Brazoria County has adopted a Beach Access and Dune Protection Program and permit process for projects that alter sand dunes in Brazoria County.[209] While mentioning that the applicant must seek this permit from a local authority, the DEIS is completely silent as to what impacts this Project will have on sand dunes in Brazoria County. It is thus unclear from review of the DEIS what sand dune impacts CFCA&CW should be concerned about.

For example, Surfside Beach, one of the beaches most impacted by the proposed Project, is already prone to severe erosion, losing up to 16 feet of beach a year according to some estimates by the GLO. GLO considers Surfside Beach to be one of the most-erosion prone stretches of beach in Texas, and in 2015, the GLO invested $2.3 million from its Coastal Erosion Planning and Response Act program to replenish the beach. The DEIS is again silent regarding potential erosion impacts that could be related to this Project that could further exacerbate the severe, existing erosion problems in the area. As part of the 2015 project, the rock revetment will be repaired and 23,000 cubic yards will be spread along 1,200 feet of beach. Just four years before, in 2011, Surfside received 140,000 cubic yards of sand as part of a more than $6 million renourishment effort.

Beach erosion is caused by the lack of sediment deposition that can be created by man-made actions such as damming of rivers, land subsidence from groundwater withdrawal, construction of seawalls, groins and jetties and diversion of rivers, in addition to hurricanes or tropical storms. The Project, therefore, potentially poses dangers to Surfside Beach as well as its sand dunes that help prevent such erosion from happening.

For example, it is possible that these siting of the pipeline on the coastline near Surfside Beach would raise some concerns about dune protection in this area. Specifically, the portion of the Project requiring the Beachfront Construction and Dune Protection Permit is located in the

[209] DEIS at 6-2 (referencing Brazoria County, Beach Access and Due Protection Program (June 2012), https://www.glo.texas.gov/coast/coastal-management/forms/files/brazoria.pdf).

Village of Surfside Beach. The Beachfront Construction and Dune Protection Permit must be issued prior to construction within 1,000 feet of mean high tide. Contrary to the statements in the DEIS, Applicant should be seeking this permit from the Village of Surfside Beach, not Brazoria County.[210] The Village of Surfside Beach has already indicated its opposition to this Project given the potential impacts to its coastline from construction and possible impacts to recreation, the environment, endangered species in the area, tourism, and property values.

To obtain such permit and comply with the Brazoria County Beach Access and Dune Protection Program, the Applicant needs to provide a considerable amount of information to the Village of Surfside Beach:[211]

1. cumulative and indirect effects of the proposed construction on all dunes and dune vegetation within critical dune areas or seaward of a dune protection line;

2. cumulative and indirect effects of other activities on dunes and dune vegetation located on the proposed construction site;

3. the preconstruction type, height, width, slope, volume, and continuity of the dunes, the preconstruction condition of the dunes, the type of dune vegetation, and percent of vegetative cover on the site;

4. the most recent historical erosion rate as determined by the University of Texas at Austin, Bureau of Economic Geology, and whether the proposed construction may alter dunes and dune vegetation in a manner that may aggravate erosion;

5. all practicable alternatives to the proposed activity, proposed site, or proposed methods of construction;

6. the applicant's mitigation plan for any unavoidable adverse effects on dunes and dune vegetation and the effectiveness, feasibility, and desirability of any proposed dune reconstruction and re-vegetation;

7. the impacts on the natural drainage patterns of the site and adjacent property

8. any significant environmental features of the potentially affected dunes and dune vegetation such as their value and function as floral or faunal habitat or any other benefits the dunes and dune vegetation provide to other natural resources;

9. wind and storm patterns including a history of wash-over patterns; and

10. location of the site on the flood insurance rate map; success rates of dune stabilization projects in the area.

Moreover, the Applicant needs to allow for financial compensation for any adverse effects and be prepared to address flooding and drainage issues created by the Project, including

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[210] DEIS at 1-18.

[211] Brazoria County, Beach Access and Due Protection Program (June 2012), https://www.glo.texas.gov/coast/coastal-management/forms/files/brazoria.pdf.

a plan for wind and storm patterns and resulting erosion. A removal process for the Project should also be outlined if it causes damage.

With respect to the Coastal Management Plan for the Freeport Area, the main concerns expressed by residents of Freeport are whether the proposed measures for coastal protection are adequately protective given the impacts from adding another pipeline to the area as already identified in the USACE's prior Sabine Pass to Galveston Bay Study issued in 2015.[212] There are "hundreds" of pipelines in the Project area, transporting a variety of petroleum products and other substances, including hazardous waste, between facilities along the gulf coast, and "numerous pipeline crossings along the proposed levee and floodwall alignments."[213] There is at least one pipeline in Freeport, one "large, 48-inch buried pipeline connecting the Bryan Mound facility to the refineries at Texas City to the northeast" which the USACE, in considering other projects, stated the exact pipeline location as "not known." [214] This basic information about the location of pipelines and possible impacts to them is the kind of research that should be considered before approving the Project. It is not enough to merely identify proliferating pipelines as "an issue."[215] These are important pieces of infrastructure, and complications with pipelines can lead to disastrous environmental impacts that endanger residents, industry, drinking water, and the environment.[216] The Project must analyze the possible impacts to onshore and undersea pipelines and identify mitigation measures to minimize those impacts.

For example, as shown in Figure 2.2-3 of the DEIS,[217] the DEIS mentions areas where the projects Proposed undersea pipelines will cross 2 major shipping fairways, such as the Freeport Harbor Shipping Fairway, and the Aransas Pass to Calcaseiu Pass Shipping Fairway, and making sure that the Project's pipelines are installed a minimum of 10 feet below the underwater natural bottom elevation.[218] However, this does not address the concern of what happens if a ship traveling in the shipping fairway sinks and hits the pipeline. Similarly, the increased vessel traffic through these areas generated by SPOT will be concerning as the number of vessels utilizing the same area only increases the likelihood of oil spills or collisions.[219] Other than noting the fairway used to approach the SPOT DWP is "heavily traveled" in the DEIS,[220] the Federal Agencies did not fully evaluate the risks for accidents associated with increasing vehicle traffic in this area.[221] Given the ships being serviced by the Project are much larger and less maneuverable, their added presence in these fairways is not insignificant, particularly to smaller recreational vessels that aren't even included in the vessel traffic counts estimated at 2,500 to

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[212] USACE, Sabine Pass to Galveston Bay, Texas Coastal Storm Risk Management and Ecosystem Restoration Draft Integrated Feasibility Report –Environmental Impact Statement, September 2015 (hereafter, Sabine Pass to Galveston Bay Study).
https://www.swg.usace.army.mil/Portals/26/docs/Planning/Sabine%20Pass%20to%20Galveston/S2G%20(Keep%20this%20folder)/S2G%20DIFR_EIS_Main_Report_2015.pdf

[213] Sabine Pass to Galveston Bay Study at 2-20, 6-1, 7-32.

[214] Sabine Pass to Galveston Bay Study at 7-32.

[215] DEIS at 5-19.

[216] Richard Stover, Ph.D., and the Center for Biological Diversity, America's Dangerous Pipelines, https://www.biologicaldiversity.org/campaigns/americas_dangerous_pipelines/.

[217] DEIS at 2-11.

[218] DEIS at 2-10.

[219] *See* DEIS at 5-31, 8-1.

[220] DEIS at 3-282.

[221] DEIS at 3-365.

6,000 vessel transits over a 2-year period for the northwest-southeast safety fairway.[222] These vessel traffic estimates should have been increased to account for these smaller vessels also utilizing the area to give a more accurate picture of the congestion.

9. Decommissioning the SPOT DWP given Texas Regulations

In section 2.2.9. Decommissioning, the DEIS discloses that the anticipated life of the Project is 30 years unless a secondary NEPA review is initiated.[223] The DEIS further states that subsea crude oil pipelines from the platform to the shore would be abandoned in place.[224] As stated in its public comments on the Project, the Government Land Office does not allow pipeline abandonment in place on state-owned submerged lands.[225] All pipelines on state lands must have an active easement with the GLO, and GLO expressly stated that removal will be required at the time of decommissioning. The proposed process for decommissioning for this Project needs to be updated to follow GLO regulations. Moreover, the potential impacts from removing the pipelines on state lands must be fully discussed and disclosed to the public. Section 2.2.9 of the DEIS is silent regarding its analysis of these decommissioning impacts from pipeline removal, as it is not part of the planned, preferred alternative for the decommissioning process.[226]

Further, on March 1, 2019, the Bureau of Safety and Environmental Enforcement (BSEE) expressed its concerns about the lack of specificity to complete its analysis based on the lack of information available in the DEIS on decommissioning alternatives.[227] The BSEE is the agency responsible for evaluating and making available decommissioning costs estimates using the Decommissioning Costs Rule. Specifically, BSEE noted that the DEIS did not include discussion of and environmental impact analysis on the complete removal of the pipelines.[228]

The Texas GLO and BSEE are both correct. While Section 3.17.7.4 discusses removal on decommissioning, it does not include any assessment of the removal other than to state that it would "have the most impact on the seafloor and marine resources as compared to the other alternatives." There is no substantive discussion included in the DEIS regarding what these impacts are and how long-term the impacts would be.[229] This omission is material and requires a supplemental DEIS to evaluate these impacts fully particularly when the DEIS already acknowledges that the impacts to seafloor habitat during the decommissioning and removal of just the platform, PLEMS, and mooring systems, much less miles of pipeline, could be "irreversible impacts."[230]

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[222] DEIS at 3-382.
[223] DEIS at 2-58.
[224] DEIS at 2-58 to 2-59.
[225] MARAD-2019-0011-0137.
[226] DEIS at 2-58.
[227] MARAD-2019-0011-0007.
[228] *Id.*
[229] DEIS at 3-399.
[230] DEIS at 7-1.

As BSEE has noted, the experience of pipeline removal in the U.S. waters is limited to a few incidents.[231] Here, the impacts or risks associated with pipeline removal for this Project are not discussed or disclosed in the DEIS. This analysis should be supplemented, and the public should be allowed to comment.

Moreover, there is no disclosure in the DEIS concerning the costs related to decommissioning or any statements or verifications that the Applicant will be financially able to cover the costs of pipeline removal for the Project, as required by the State of Texas, at decommissioning. In 2014, the BSEE commissioned a study to provide an overview of the related costs associated with pipeline removal, which suggests removal would be an expensive proposition for Applicant.[232] Some excerpts from this report are shared below as relevant to this particular Project:[233]

- The diameter, depth and length of the pipeline being removed have a direct effect on the costs. Larger diameter (30"-36") pipelines may cost 2 to 2.5 times the cost of removing smaller (less than 4") pipelines. The depth of a pipeline will typically have cost consequences for retrieval. For example, pipelines to be retrieved may cost up to 50 % more when the water depth increases from 200 feet to 750+ feet. The length of the pipeline will also affect the cost of retrieval. For example, retrieving a pipeline that is one mile in length will have the same mobilization costs as retrieving a pipeline that is several miles long. The mobilization costs must be spread out on a per/mile basis for a pipeline to be retrieved. Obviously longer pipelines will have a lower cost/mile for mobilization costs. Given that this Project has two proposed collated 12.2-mile 36-inch-diameter crude oil offshore pipelines for crude oil delivery,[234] these costs will likely be significant.

- If a pipeline has coatings on it, these coatings add to the cost and complexity for retrieval. Coatings also add to the cost of disposal for piping because the coatings add additional weight to the piping and may result in additional retrieval cost if the coatings have to be stripped in places where the piping is to be cut for retrieval.

- If a pipeline has numerous crossings with other pipelines, which is the case with this Project,[235] the cost for retrieval may be increased. Typically, a pipeline would be cut and its ends buried some distance from a crossing with another pipeline. If a short pipeline segment cannot be left in place where it crosses under another pipeline, then the pipeline being crossed under must be lifted to facilitate the removal of the pipeline segment. This situation will add cost and complexity to pipeline removal because the pipeline being crossed must be moved and potentially may have to be shut in and de-pressurized prior to moving.

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[231] BSEE Report, An Assessment of Safety, Risks and Costs Associated with Subsea Pipeline Disposals (September 2014) at 30-32, https://www.bsee.gov/sites/bsee.gov/files/tap-technical-assessment-program//480ae.pdf
[232] *Id. at* 32.
[233] *Id. at* 30-32.
[234] DEIS at 1-6.
[235] DEIS at 5-18, Figure 5.2-1 at 5-15, 5-19.

The BSEE has estimated that the current decommissioning liabilities on the Gulf of Mexico Outer Continental Shelf (OSC) are approximately $33 billion.[236] Therefore, it would be important before construction for the Project begins, that an adequate escrow amount to cover the projected decommissioning costs for this Project should be set up by Applicant to ensure that it has the financial ability to decommission fully the pipelines that it is installing with an appropriate reserve, accounting for interest, inflation, and cost appreciation for 30-year timeline for removal. The Bureau of Ocean Energy Management (BOEM) is agency responsible for determining and securing the appropriate amount of financial assurance, and BOEM uses BSEE's decommissioning cost estimates to set necessary financial assurance levels in order to minimize or eliminate the potential that taxpayers will need to assume decommissioning obligations in cases such as bankruptcy. While this decommissioning reserve could be funded in tiers or phases as construction on the offshore sections progressed, the Applicant would at all times need to show that it was financially capable of complying with decommissioning requirements required for the end of life of the project. 33 U.S.C. 1503(c)(1). Thus, it is important that the DEIS disclose sufficient information on decommissioning for BSEE and BOEM to complete the work.

Given the oil industry's legacy in Texas of abandoning wells in place, without financial wherewithal proposed for the end of the project, complicating property ownership and transaction for years to come, the State of Texas cannot let the licensing of DWP head down the same path without ensuring that the taxpayers of Texas or the United States won't someday have to assume this burden. Given that the Project proposal does not provide for any financial remuneration to local communities at risk and directly damaged by this Project, the further risk that the operator might not adequately assess or prepare for the financial requirements of the decommissioning process raises extreme red flags for this Project. The DEIS doesn't discuss this obligation in any detail or the associated costs at all. It is difficult to see, under these circumstances, in the present DEIS, that this Project can be approved at this state of the application less than 89 days from the statutory deadline for a record of decision.

III. RECOMMENDATION AND CONCLUSION

CFCA&CW appreciates the Federal Agencies' consideration of these comments and proposed recommendations concerning the Project as follows:

First, as discussed above, in addition to the already mentioned environmental impacts that will disproportionately and negatively affect residents in Freeport represented by CFCA&CW and identified as an environmental justice community, recent events raise several concerning things about the viability of this Project that require substantial additional analyses, including detailed factual determinations about the full extent of direct, indirect, cumulative, and secondary impacts from the SPOT Project, including further notice and disclosure to the public of such impacts. Because critical pieces of this required environmental review are missing from the DEIS, as described above, the Federal Agencies should allow additional public comment on any supplementary material once it provides it to the public, as required under its regulations.

[236] BSEE Fact Sheet (November 2016), https://www.bsee.gov/fact-sheet/decommissioning-costs-rule-fact-sheet

Second, if the route changes for the online or offshore pipelines related to the Proposed Project, new notices must be issued and an opportunity to comment given to landowners potentially impacted. Further, depending on how drastically the route changes, a supplemental DEIS may be necessary to capture impacts to wetlands, bodies of water, parkland, or nature reserves. 40 CFR § 1502.9(c)(1)(i).There may also be a requirement to investigate and explain more fully alternative actions (now selected) discussed in the DEIS, but not fully analyzed like the proposed alternatives. 40 CFR § 1502.9(c)(1)(ii).

Third, a public meeting should be held concerning this Project with adequate public notice, not just in Lake Jackson, but also closer to the coastally impacted areas of Freeport, Oyster Creek, and the Village of Surfside Beach. Similarly, the USACE must be obligated to hold a public hearing on the CWA Section 404 Permit. Current public health concerns associated COVID-19 should delay such gatherings until it is safe to do so in compliance with regulations issued by the Centers for Disease Control and Prevention and any restrictions mandated by state and local authorities.

Fourth, the Applicant must demonstrate to MARAD that it is financially responsible, not just to fund the Project's construction and operation to comply with applicable regulations, but its complete decommissioning as required by state law. 33 U.S.C. § 1503(c)(1). Recent public announcements about its ability to fund the capital expenditures necessary for this Project and the failure to pay timely the environmental consultant to the USCG raise concerns about this specific requirement for approval of the license application. Moreover, the DEIS is silent concerning the budget for the decommissioning of the Project and whether any requirements are being put in place to ensure the operator's financial viability at the end of the Project so that taxpayers do not get stuck with the bill.

Finally, the failure to complete the environmental review of the application timely within the statutory periods mandated by the DWPA would require its automatic rejection by MARAD.

On behalf of CFCA&CW, Lone Star Legal Aid would appreciate a complete response from the USACE, USCG and MARAD to the comments and concerns raised in this letter. Please contact the undersigned counsel if you have any questions or need clarification regarding the comments contained herein.

Sincerely,

LONE STAR LEGAL AID
EQUITABLE DEVELOPMENT INITIATIVE
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ATTORNEYS FOR CITIZENS FOR CLEAN AIR & WATER

EXHIBIT 2

EARTHJUSTICE SIERRA CLUB

March 20, 2020

Submitted via electronic mail to Kristie.A.Brink@usace.army.mil and swg_public_notice@usace.army.mil

Kristie Brink
Regulatory Project Manager, Policy Analysis Branch
U.S. Army Corps of Engineers
Galveston District - Regulatory Division
5151 Flynn Parkway, Suite 306
Corpus Christi, Texas 78411-4318

Re: Comments on SPOT Terminal, LLC Clean Water Act Section 404 and Rivers and Harbors Act Section 10 Permit Application, # SWG-2018-00751

Dear Ms. Brink:

The undersigned groups submit the following comments on the application No. SWG-2018-00751 for U.S. Army Corps of Engineers' (the "Corps") Clean Water Act Section 404 and Rivers and Harbors Act Section 10 permits for the proposed Sea Port Oil Terminal (SPOT) Deepwater Port ("DWP") Project ("SPOT Project" or "Project").[1] SPOT Terminal, LLC ("SPOT Terminal" or "SPOT") seeks authorization to construct and operate a massive deepwater port terminal that includes modification or construction of two onshore terminals, construction of over 140 miles of onshore and offshore pipelines, and the installation of two buoys about 30 nautical miles off the coast of Brazoria County, Texas, capable of loading two Very Large Crude Carriers ("VLCCs") at a time. SPOT intends to transport and export massive quantities of crude oil (as much as 2 million barrels per day) that, when burned, will exacerbate climate change and further damage sensitive Texas ecosystems that are already overburdened by industrial activities. Under the governing statutes and regulations, the Corps cannot grant SPOT Terminal's request. Below we explain how a permit would contravene the specific requirements of the Clean Water Act and the Corps' mandate to deny permits that would not serve the public interest.

The undersigned groups have serious concerns about the proposed SPOT Project, including, but not limited to the potential for oil spills along the pipeline route, the life-cycle of greenhouse gas emissions associated with the oil to be transported through the project, and impacts to waterways crossed by the pipeline. This Project, with the sole purpose of allowing oil and gas industry interests to export and profit from a current glut in oil production, will disproportionately burden local communities, sensitive Texas ecosystems, coastline, and Gulf of Mexico waters, and it will contribute to global climate change. Indeed, the serious potential

[1] Many of the undersigned groups are also submitting comments on the SPOT Project Draft Environmental Impact Statement (DEIS), for which the U.S. Army Corps of Engineers is a cooperating agency. The DEIS comments are due on March 23, 2020. We intend to send our DEIS comments to the Corps on March 23 and ask that you append them to these comments.

impacts of this massive infrastructure project undermine the public interest. The Corps' failure to conduct an adequate analysis of these impacts and make an appropriate public interest determination violates the Clean Water Act, 33 U.S.C. § 1344, and Rivers and Harbors Act, 33 U.S.C. §§ 403, 408.

On February 11, 2020, the Corps released a public notice inviting the public to comment on SPOT's applications submitted pursuant to Section 404 of the Clean Water Act, 33 U.S.C. § 1344, and Sections 10 and 14 of the Rivers and Harbors Act, 33 U.S.C. §§ 403, 408.[2] The notice stated the Corps intends to incorporate an Environmental Impact Statement ("EIS"), which the U.S. Coast Guard and the Maritime Administration are preparing for the proposed project, into the Corp's permit decision process. On March 10, the Corps extended the comment deadline on the permit applications from March 13 to March 20, 2020.[3]

As set forth in detail below, the undersigned groups hereby request that the Corps deny SPOT Terminal's applications for Clean Water Act, Section 404 and Rivers and Harbors Act, Section 10 permits.

I. PROJECT BACKGROUND

SPOT Terminal proposes to construct and operate a massive deepwater offshore port, which would allow the transportation of crude oil for export to the global market. The deepwater port connection would be located about 30 nautical miles off the coast of Brazoria County, Texas and would allow two very large crude carriers ("VLCC's") to moor and load crude oil simultaneously. The proposed terminal has the capacity to load 2 million barrels of crude oil per day, 365 days per year, which would increase current U.S. export capacity of crude oil by over 60 percent. Operating at full capacity, the SPOT Project would transport 745 million barrels of oil every year—more than oil companies produce offshore in the entire Gulf of Mexico in one year (last year oil companies produced 683 million barrels of oil). Needless to say, the SPOT Project is unprecedented. It would be the first terminal of its kind to fully load multiple VLCCs at a time in the United States at such high capacities. Only one other U.S. port in Louisiana has the ability to fully load a VLCC and only at a rate of about one VLCC per month.

The Project includes several major construction components. According to the Corps' Notice on February 11, 2020, SPOT Terminal proposes to make modifications to the existing Enterprise Crude Houston ("ECHO") Terminal facility located just east of Pearland, Texas and construct a 50-mile oil supply pipeline that would connect the ECHO Terminal to the proposed Oyster Creek Terminal. The proposed Oyster Creek Terminal site would be located approximately 2.5 miles northeast of Lake Jackson, Texas and 4 miles southeast of Angleton, Texas in Brazoria County. The proposed pipeline would cross at least 129 different waterbodies (including creeks, canals, bayous, lakes, and ponds) and numerous wetlands throughout Harris and Brazoria Counties within the pipeline route between ECHO Terminal to the shore crossing

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[2] SPOT Army Corps of Engineers Public Notice, SWG-2018-00751 (Feb. 11, 2020).

[3] Email from Kristie Brink, Regulatory Project Manager, Policy Analysis Branch, U.S. Corps of Engineers, dated March 11, 2020, attached as **Exhibit A** to this letter.

north of Surfside, Brazoria County, Texas where the onshore pipelines would tie into the subsea pipelines to deliver crude oil to the SPOT DWP.

Additionally, SPOT will construct two collocated, approximately 12.2 mile, 36-inch diameter crude oil pipelines from Oyster Creek Terminal to the shore crossing north of Surfside, Texas; one pipeline interconnection from the existing Rancho II 36-inch diameter pipeline to the ECHO to Oyster Creek Pipeline, at the existing Rancho II Junction Facility; and ten main line valves, six of which would be along the ECHO to Oyster Creek Pipeline segment and four along the Oyster Creek to Shore Pipelines segment, pig launchers for the ECHO to Oyster Creek Pipeline, and pig launchers and receivers for the Oyster Creek to Shore Pipelines.

The two offshore pipelines (each totaling about 50 miles in length), buried under the sea floor, would be located within three marine protected areas, the Reef Fish Stressed Area, Reef Fish Longline and Buoy Gear Restricted Area, and Texas Shrimp Closure Area, and about 40 miles from the Flower Garden Banks National Marine Sanctuary. Finally, the project proposes to install two single point mooring buoys about 30 nautical miles offshore to transport the oil from the pipelines onto VLCCs.

The SPOT Project will cause significant impacts to the local ecosystems. At a minimum, the application recognizes that 101 acres of wetlands will be affected by the project and at least 14.8 acres of wetlands will be permanently filled or converted. As described in more detail below, it is likely that a larger acreage of wetlands will be permanently affected. The new terminal and offshore pipelines would be located near Brazos River and Oyster Creek, two large waterbodies that supply important freshwater inputs into the Gulf of Mexico. DEIS at ES-9. Further, the project will significantly affect other waterbodies, important migratory bird habitat, shoreline beaches that are necessary to support endangered sea turtle species, and will introduce sediment and other hazardous chemicals into the freshwater and marine environments.

The SPOT Project will be located in Brazoria County, TX. In 2018, Brazoria County had a population of some 370,000 people with a median age of 36.1 and a median household income of $73,623. The population of Brazoria County, TX is 46.1% White, 31.1% Hispanic or Latino, and 14.5% Black or African American.

The largest industries in Brazoria County, TX include health care & social assistance (21,821 people), manufacturing (21,579 people), and construction (19,505 people). However, also of great importance to the local economy is tourism and eco-tourism, which is likely to be affected by the SPOT Project. The area near the Project is home to the Brazos River and its confluence with the Gulf, as well as important state parks like Brazos Bend State Park and Stephen F. Austin State Park.

Further, the proposed Project would be located in an area that supports a huge commercial and recreational fishing economy. As the draft Environmental Impact Statement ("DEIS") to support the project states, Texas contributed 26 percent of revenue from all commercial fishing in the Gulf of Mexico. DEIS at 3-361. Ports within Galveston Bay (including the Freeport area) ranked third among Texas ports in commercial fishery landings and second in value. Fishing vessels comprise 70 percent of the marine traffic near where the offshore pipelines

and offshore terminal will be located.[4] The SPOT Project will send sediment into the marine environment and will result in a number of small to large spills that will release crude oil and other harmful chemicals into the water. All of these resulting effects will have the potential to significantly degrade marine fish species and habitat as well as the fishing community.

The project takes place in highly sensitive habitat that is already overburdened from other industrial activity. The Gulf Coast of Texas is home to one of the largest concentrations of petrochemical facilities in the world. From the "Golden Triangle" area of Orange County, to Jackson Counties and, going south, Chambers, Galveston, and Harris Counties, including the City of Houston, and into Brazoria County where the SPOT Project is proposed, there are hundreds of facilities, including oil refineries, plastic manufacturing plants, other chemical facilities and liquid natural gas ("LNG") facilities. Indeed, in Brazoria County itself, there were 66 facilities which were sufficiently large to be required to report the TCEQ's annual Emissions Inventory. Most of these facilities were related to the oil and gas and petrochemical industries.

While these facilities are important to the local economy of the Texas Gulf—and to the U.S. as a whole, recent events have revealed how exposed local communities are to dangerous levels of chemicals, including carcinogens like benzene. Texas Gulf communities have particularly suffered from repeated accidents and upset emissions at oil and gas and petrochemical facilities. Over the last few years, beginning with events related to Hurricane Harvey and resulting floods, the failure of adequate regulation and enforcement in Texas has been on display. There were more than a dozen storage tanks that failed at petrochemical facilities and leaked during Hurricane Harvey itself—several related to poor design in which the storage tank roofs caved in. Equally troubling has been the more recent failures that have occurred over the last year.

While not an exhaustive list, well-documented failures at facilities holding petrochemicals in the last year have included:

- The March 16 Baytown refinery owned by Exxon Mobil, where a tube leak caused a fired which ended up releasing highly toxic compounds for 8 days;[5]

- The March 17 ITC Chemical Fire and Disaster in Deer Park, where thousands of gallons of a highly flammable chemical spilled for 30 minutes without any alarms going off, and then caught fire, which burned for days, leading to the closing of the Houston Ship Channel and orders for shelter in place;[6]

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[4] *Id.*

[5] https://www.houstonchronicle.com/news/houston-texas/houston/article/Harris-County-sues-Exxon-Mobil-over-illegal-13961152.php.

[6] https://www.houstonchronicle.com/news/houston-texas/houston/article/Report-ITC-did-not-have-emergency-shutoff-valve-14584762.php.

- The April 2 Fire and Explosion at KMCO in Crosby, where again a highly flammable liquid leaked due to an equipment failure, leading to destruction and actual death of a worker;[7]

- The July 31 second explosion at Exxon Mobil's Baytown facility injured 37 and sent another plume of toxic fumes over Houston;[8]

- The November 27 explosion in Port Neches in Jefferson County from 2 explosions at the TPC plant, injuring workers and residents and impacting a 4-mile radius;[9] and

- The January 24 explosion at the Watson plant, killing two workers, injuring others, and damaging hundreds of structures.[10]

While there have not been reported accidents during this time period in Brazoria County, the same lack of regulation, history of poor enforcement, and limited local jurisdictional power means that Brazoria residents face similar risks. Adding additional oil terminals and infrastructure only heightens this potential.

While the companies that own these facilities are responsible for the accidents and poor management that led to these disasters, it is undeniable that Texas has not been a leader on proper oversight of these facilities. First, limited inspections and enforcement is common. Indeed many of these facilities—most notably the PTC facilities—were repeat violators of basic environmental regulations and were allowed to continue to operate. Indeed, at the very time that PTC was exploding, the Texas Council on Environmental Quality ("TCEQ") was arranging an agreed settlement order for past violations—an order that was only scrapped once public pressure on the agency led the agency to backtrack and send the previous violations to the Office of Attorney General for further action. This is a pattern at TCEQ that is well documented—industrial facilities receive limited punishment for their violations, are allowed to continue to operate, and then major accidents occur.

Worse, the company that owns SPOT Terminal has a deplorable record of spills, making the risk of damage even more likely. SPOT Terminal is a wholly owned subsidiary of Enterprise Products Operating LLC. DEIS at ES-1. Enterprise Products Operating LLC is a subsidiary of Enterprise Products Partners, L.P. (hereinafter "Enterprise").[11] Enterprise is a large oil and gas pipeline parent company with a history of repeated pipeline failures and environmental violations. Between 2010 and 2016, 521 pipeline operators reported releases in the United

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[7] https://www.houstonchronicle.com/news/houston-texas/houston/article/Employees-tried-to-stop-leak-before-fatal-KMCO-15072192.php.
[8] https://www.houstonchronicle.com/news/houston-texas/houston/article/ExxonMobil-s-Baytown-fire-the-latest-in-a-14270558.php.
[9] https://www.houstonchronicle.com/news/houston-texas/houston/article/Evacuation-order-remains-in-place-as-crews-fight-14869713.php.
[10] https://www.houstonchronicle.com/news/houston-texas/houston/article/Watson-worker-injured-in-blast-sues-company-for-15018379.php.
[11] Enterprise Product Partners L.P., Annual Report (Form 10-K), Ex. 21.1, (Feb. 1, 2020).

States.[12] Of those operators, the top two with the most reported incidents were Enterprise Crude Pipeline LLC, another subsidiary of Enterprise,[13] and Enterprise Product Operating LLC (see excerpted table below).[14] Combined, they reported a total of 360 pipeline incidents during those seven years.[15]

Operator	Incidents	Miles	Incidents per 100 Miles
Enterprise Crude Pipeline LLC	183	3,738	4.9
Enterprise Products Operating LLC	177	26,946	0.7
Sunoco Pipeline LP	172	5,774	3
Plains Pipeline; LP	150	9,209	1.6
Magellan Pipeline Company; LP	136	10,954	1.2
Colonial Pipeline Co.	130	5,599	2.3
Buckeye Partners; LP	106	6,645	1.6
Pacific Gas & Electric Co.	96	49,028	0.2
Kinder Morgan Liquid Terminals; LLC	83	88	93.9
Marathon Pipe Line LLC	82	5,694	1.4

Figure 5: This table shows the ten operators with the most reported incidents, along with the length of their pipeline network.

Enterprise and its subsidiaries have a history of pipeline incidents that does not engender confidence in Enterprise's ability to prevent incidents at the SPOT Project. For instance, in 2012, a crude oil facility operated by Enterprise Crude Pipeline LLC experienced a breakout tank line failure due to internal corrosion in one of its underground pipes, which resulted in over $1.5 million in property damage.[16] Operations personnel did not notice the leak, which released 600 bbl of crude oil, until a day later when oil was seen bubbling from the ground.[17] Investigations revealed that one of the main contributing factors to the internal corrosion was the company's failure to have *any* cleaning (called "pig operations") or maintenance operations in place "to ensure the hygiene of these lines against internal corrosion."[18]

In another instance, Enterprise Products Operating LLC operators at one of its oil pipeline facilities in Texas failed to notice that crude oil was spraying up to 15 feet in the air until a citizen alerted the local fire department.[19] In the span of approximately two hours, an estimated 230 bbl of crude oil was released.[20] Investigations determined that all four cap screws

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[12] Matt Kelso, BA, *Updated Pipeline Incident Analysis*, FRACTRACKER ALLIANCE (Nov. 23, 2016), https://www.fractracker.org/2016/11/updated-pipeline-incidents/.
[13] Enterprise Product Partners L.P., Annual Report (Form 10-K), Ex. 21.1, (Feb. 1, 2020).
[14] Matt Kelso, BA, *Updated Pipeline Incident Analysis*, FRACTRACKER ALLIANCE (Nov. 23, 2016), https://www.fractracker.org/2016/11/updated-pipeline-incidents/.
[15] *Id.*
[16] Failure Investigation Report – Enterprise Crude Pipeline, LLC (Cushing West Tank Farm, Cushing, OK, Line C75) (Feb. 3, 2014), *available at* https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enterprise_West_Tank_Farm_Cushing_OK_04082012_%5BRedacted_for_Internet%5D.pdf.
[17] *Id.* at 5.
[18] *Id.* at 11.
[19] Memorandum for Incident Report – Enterprise Products Operating LLC, at 1 (Sept. 29, 2010), *available at* https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enterprise%20HL%20TX%202009-12-23.pdf.
[20] *Id.* at 1–2.

in an electrical pressure switch had failed due to hydrogen stress cracking.[21] Had a citizen not reported the leak, the oil spill could have been far greater.

Enterprise is also no stranger to law enforcement. Since 2000, Enterprise has paid over 16 million dollars in penalties for violations.[22] Over half of the violations were for environmental offenses.[23] The offenses include Clean Water Act violations,[24] Clean Air Act stationary source violations,[25] and pipeline safety violations including failures by Enterprise to, *inter alia*, properly train its field technicians,[26] inspect facility equipment,[27] conduct post-accident investigations,[28]

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[21] *Id.*, Appendix E, Metallurgical Evaluation Report, at 1-3.
[22] GOOD JOBS FIRST, Violation Tracker Parent Company Summary for Enterprise Products Partners, https://violationtracker.goodjobsfirst.org/prog.php?parent=enterprise-products-partners&order=pen_year&sort=asc&page=1.
[23] *Id.*
[24] *E.g.*, GOOD JOBS FIRST, Violation Tracker Individual Record TE Products Pipeline Company, LLC and TEPPCO Crude Pipeline, LLC, https://violationtracker.goodjobsfirst.org/violation-tracker/-te-products-pipeline-company-llc-and-tep (penalty of $2.865 million, Aug. 16, 2007).
[25] *E.g.*, GOOD JOBS FIRST, Violation Tracker Individual Record Enterprise Products OP-Jackrabbit CS, https://violationtracker.goodjobsfirst.org/violation-tracker/co-enterprise-products-op-jackrabbit-cs-0 (penalty of $90,200, Jan. 22, 2014); GOOD JOBS FIRST, Violation Tracker Individual Record Enterprise Gas Proc – Meeker Gas Plant, https://violationtracker.goodjobsfirst.org/violation-tracker/co-enterprise-gas-proc-meeker-gas-plant-1 (penalty of $324,750, Oct. 3, 2011); GOOD JOBS FIRST, Violation Tracker Individual Record Enterprise Products OP- Jackrabbit CS, https://violationtracker.goodjobsfirst.org/violation-tracker/co-enterprise-products-op-jackrabbit-cs (penalty of $252,350, Sept. 29, 2011);
[26] Notice of Probable Violation and Proposed Civil Penalty, CPF No. 4-2013-5018, at 5-6, 8 (May 1, 2013), *available at* https://primis.phmsa.dot.gov/comm/reports/enforce/documents/420135011/420135011_NOPV%20PCP%20PCO_05012013.pdf (issuing a notice to Enterprise's subsidiary and assessing a preliminary penalty of $26,200 for its failure to ensure its field technicians performing tasks had the necessary knowledge and skills required under law).
[27] *Id.* at 6, 8 (issuing a notice to Enterprise's subsidiary and assessing a preliminary penalty of $51,200 for its failure to properly inspect the cathodic protection system of breakout tanks for three years to prevent external corrosion).
[28] *Id.* at 4, 8 (issuing a notice to Enterprise's subsidiary and assessing a preliminary penalty of $28,700 for its failure to follow its operations and maintenance procedures for conducting post-accident investigations).

and create procedures to ensure pipeline repairs.[29] In one of its most egregious violations, TE Products Pipeline Company, LLC and TEPPCO Crude Pipeline, LLC (both subsidiaries of Enterprise)[30] agreed to pay a $2.865 million penalty to resolve Clean Water Act violations from four different occasions that, in total, discharged approximately 6,470 bbl of jet fuel, gasoline, and crude oil into waters of the United States.[31]

A company that has a repeated track record for failing to abide by the environmental and human health safety laws in place for this highly regulated, high-risk industry should not be entrusted to minimize and prevent injury and harm to environmental resources or the community, especially for a project of this magnitude.

II. REQUEST FOR PUBLIC HEARING

For the reasons set forth in detail throughout this comment letter, commenters hereby request a public hearing on the SPOT Project application. Public participation plays an important role in Clean Water Act ("CWA") permitting decisions. The Clean Water Act provides in its general policy section that "public participation in the development . . . of any . . . program established by the Administrator . . . under this chapter shall be provided for, encouraged, and assisted by the Administrator." 33 U.S.C. § 1251(e). Section 404 states: "The Secretary may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites." 33 U.S.C. § 1344(a). The applicable Corps regulations state: "[A]ny person may request, in writing, . . . that a public hearing be held. . . . Requests for a public hearing under this paragraph shall be granted, unless the district engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing." 33 C.F.R. § 327.4(b). "In case of doubt, a public hearing shall be held." 33 C.F.R. § 327.4(c).

Approval of a massive crude oil pipeline through the Texas coast without holding a public hearing would violate the Corps' Clean Water Act mandate to involve the public and hold

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[29] Final Order, In the Matter of: Enterprise Products Operating, LLC, CPF No. 4-2013-5018 (June 25, 2014), *available at* https://primis.phmsa.dot.gov/comm/reports/enforce/documents/420135018/420135018_Final%20Order_06252014.pdf (assessing a penalty of $100,000 against Enterprise's subsidiary); Notice of Probable Violation and Proposed Civil Penalty, CPF No. 4-2013-5018 (Sept. 20, 2013), *available at* https://primis.phmsa.dot.gov/comm/reports/enforce/documents/420135018/420135018_NOPV%20PCP_09202013.pdf (issuing a notice to Enterprise's subsidiary for its failure to follow its own procedures to create a job plan for pipeline repairs following an accident. This failure was a contributing factor that resulted in a second accident that injured three workers.).

[30] GOOD JOBS FIRST, Violation Tracker Individual Record TE Products Pipeline Company, LLC and TEPPCO Crude Pipeline, LLC, https://violationtracker.goodjobsfirst.org/violation-tracker/-te-products-pipeline-company-llc-and-tep.

[31] EPA, *TEPPCO agrees to over $2.8 million settlement for clean water violations* (Aug. 16, 2007), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/8cb4de3a271c66238525733700515eb4.html.

a public hearing. Indeed, there are substantial issues of significant consequence being raised by affected community members and the public at-large, and described below, demonstrating a valid interest in holding a public hearing. The Corps would violate the CWA's clear mandate to involve the public and allow public hearings if it approves a massive, precedential offshore export terminal without holding a public hearing related directly to the federal approval process for the CWA 404 permit. The Maritime Administration and Coast Guard held a separate public meeting related to the preparation of a draft environmental impact statement to support SPOT Terminal's application under the Deepwater Port Act on February 26, 2020. That public hearing was not adequate because a Corps representative did not attend and none of the agency staffers presented information on the permit applications or provided an opportunity to comment on those applications. It also did not meet the requirements of the Corps' own regulations, which state that "[p]ublic notice shall be given of any public hearing" to "parties having an interest in the subject matter" and "[s]uch notice should normally provide for a period of not less than 30 days following the date of public notice." 33 C.F.R. § 327.11(a). The Coast Guard provided notice of its hearing on the DEIS on February 7, 2020, less than 20 days before the date of the hearing. 85 Fed. Reg. 7381 (Feb. 7, 2020).

Moreover, the Corps did not provide adjacent property owners proper notice under 33 C.F.R. § 325.3(d)(1). Several local Surfside community members and landowners located adjacent to or on property through which pipeline infrastructure for this project would run just learned of the project. A public hearing is needed to ensure that all relevant parties receive proper notice and all relevant information related to the permit application is provided to interested parties. Given the precedential nature of this project, it is important to hold a public hearing to fully evaluate all concerns and inform the public about the nature of the project.

Additionally, given the circumstances of the COVID-19 pandemic, and current recommendations and orders from the Center for Disease Control, local public health departments, the Governor, and other epidemiological experts prohibiting public gatherings of any substantial size and recommending that elderly and other vulnerable populations self-isolate, we request that any public hearing be scheduled only after confirmation that the risk of transmission has subsided. This is especially critical for individuals who are affected by the proposed project and are vulnerable or at high-risk for serious illness from COVID-19.

The COVID-19 pandemic has led to office and school closures throughout the country.[32] As a result, members of the public, as well as attorneys and support staff at organizations engaged in this project are forced to make necessary adjustments, including alternative childcare arrangements, to coordinate offsite preparation and timely filing of comments. In many cases, this has led to insufficient time for review and comment preparation on the 404 application and DEIS under the current deadlines. Further, Governor Abbott recently issued an order that limits all public gatherings to 10 people.[33] As such, the undersigned request that the Corps and MARAD provide a 30-day extension on the deadline for CWA and NEPA comment

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[32] Several of the offices of the undersigned organizations have forced closures in addition to numerous school closures across the country impacting staff.

[33] https://www.politico.com/news/2020/03/19/texas-governor-coronavirus-lockdown-orders-137691.

submissions, and/or request that the Corps and MARAD provide a 21 to 30-day supplemental comment period on the 404 application and DEIS to accommodate the extenuating circumstances.

III. THE PROJECT DOES NOT COMPLY WITH SECTION 404 OF THE CLEAN WATER ACT

The CWA has the sweeping goals to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters," 33 U.S.C. § 1251(a), and "to increase the quality and quantity of the Nation's wetlands," *id.* § 2317(a). The Act prohibits the discharge of soil or other materials into wetlands unless authorized by a permit issued by the Corps, 33 U.S.C. § 1344(a); 33 C.F.R. § 322.3; Parts 323, 325, and provides strict substantive limits on approving projects that degrade water quality or harm aquatic uses.

The Corps must deny the permit because the proposed discharge does not comply with the CWA's Section 404(b)(1) guidelines. The Clean Water Act limits the authority of the Corps to issue permits for the discharge of fill material into the waters of the United States.[34] Specifically, Section 404(b)(1) of the CWA requires the Corps to apply guidelines established by the U.S. Environmental Protection Agency ("EPA") to restore and maintain the integrity of aquatic ecosystems. 33 U.S.C. § 1344(b)(1); 40 C.F.R. § 230.1(a). The Corps' regulations state that a permit will be denied if the proposed discharge would not comply with the 404(b)(1) guidelines. 33 C.F.R. § 323.6(a).

Under these guidelines, "degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts." 40 C.F.R. § 230.1(d). Discharging fill material in wetlands often destroys habitat and vegetation, degrades water quality, and diminishes wetlands' capacity to store floodwater and shield upland areas from erosion. *Id.* § 230.41(b). "Fundamental to [the 404(b)(1)] Guidelines is the precept that . . . fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact." *Id.* § 230.1(c).

Discharging fill material into waters of the United States violates the Section 404(b)(1) guidelines when (1) there is a practicable alternative that would have less adverse effect on the aquatic ecosystem; (2) the proposed filling would significantly degrade the aquatic ecosystem; or (3) the proposed filling does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem. See *id.* § 230.12(a)(3)(i)–(iii); see also *id.* § 230.10(a), (c), (d). If there remain unavoidable impacts, the Corps must decide what compensatory mitigation is required. *Id.* § 230.93(a)(1).

In applying the above criteria, the Corps must make detailed factual determinations as to the potential environmental effects of the proposed discharges. *See id.* §§ 230.11, 230.12(b).

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[34] 33 U.S.C. § 1344(a), (b), (d); *id.* § 1362(7) (defining "navigable waters" as "waters of the United States"); 33 C.F.R. § 328.3(a)(1), (5), (6) (defining "waters of the United States" to include waters that may be used in interstate commerce, tributaries of such waters, and wetlands adjacent to those tributaries and waters).

Crucially, these factual determinations depend on not only a project's direct effects on aquatic ecosystems, but also the cumulative effects of other discharges and secondary effects associated with the project. See *id.* § 230.11(g), (h). Thus, while the Section 404(b)(1) guidelines apply only to the waters of the United States and coextensive aquatic ecosystems, *see id.* § 230.3(b), and with respect to the ocean, these waters ostensibly include only the territorial seas within three nautical miles of the coastline, *see id.* § 230.3(s)(6),(r), the Corps must consider the environmental impacts from additional predictable developments, as well as those indirectly caused by a project. In making these factual determinations, the Corps must evaluate the duration and physical extent of any impacts as well as the possible loss of environmental values for different waters. *E.g.*, *id.* § 230.11.

There are several specific requirements under the Section 404(b)(1) guidelines that are particularly relevant here. First, the Corps may not issue a permit under Section 404 if there is any "practicable alternative" to the project with less impact on the aquatic ecosystem. 40 C.F.R. § 230.10(a). Second, no discharge can be permitted that jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act. *Id.* § 230.10(b)(3). Third, the Corps cannot issue the permit unless there is a demonstration that any discharge from the project "will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern," or if any discharge will result in significant adverse effects to water quality. *Id.* § 230.10(c). Fourth, the Corps cannot allow discharges unless "appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." *Id.* § 230.10(d). Finally, the Corps must determine that the project is in the "public interest" by weighing all "relevant" considerations and balancing all probable impacts of the proposed action against its alleged benefits. 33 C.F.R. § 320.4(a). Moreover, the Corps must independently verify all the information in the application. *See, e.g.*, *Greater Yellowstone Coalition v. Flowers*, 359 F.3d 1257, 1269 (10th Cir. 2004); *see also* 40 C.F.R. §1506.5(a). Taken together, these requirements create a "very strong" presumption "that the unnecessary alteration or destruction of (wetlands) should be discouraged as contrary to the public interest." *Buttrey v. United States*, 690 F.2d 1170, 1180 (5th Cir. 1982) (citation omitted).

For the reasons discussed below, the analysis contained in the SPOT Project Draft Environmental Impact Statement ("DEIS") and the information provided by the Corps from SPOT Terminal's permit application fail to demonstrate that the proposed filling would comply with the Section 404(b)(1) guidelines, or that the Project is in the public interest.

A. The Application Is Grossly Deficient and Fails to Demonstrate that the Project Meets Section 404 Requirements.

The information that the Corps provided related to SPOT Terminal's application largely consists of generic and conclusory statements that do not provide the information the Corps must have to evaluate the Project under Section 404. The public notice and related materials do not include the most basic information needed to effectively evaluate the application, including:

- A detailed analysis of the impacts to aquatic resources associated with all reasonable systems alternatives, route alternatives, and alternative construction methods;

- A detailed analysis of the practicability of all reasonable systems alternatives, route alternatives, and alternative construction methods;
- Baseline descriptions of the wetlands and waterbodies that will be impacted, including a description of the functions that those waters support, including wildlife and native species, as well as whether the waters and wetlands provide any flood relief function;
- A detailed analysis of the Project's impacts to water quality;
- A detailed comparison of the environmental impacts for each of the alternatives that the Corps is considering;
- A detailed analysis of how the Project is in the public interest, as defined by 33 C.F.R. § 320.4(a).

As is clear from this lengthy list, SPOT Terminal has not provided close to enough information to allow the Corps to even begin to evaluate its application and independently verify the claims therein. The deficiencies in the information provided by the Corps also make meaningful comment by the public on whether the Project complies with Section 404 impossible. The Corps must provide additional, detailed information or order SPOT Terminal to supplement the application with the information needed to evaluate the Project under Section 404 and provide another opportunity for public review and comment.

B. SPOT Terminal's Preferred Route Is not the Least Environmentally Damaging Practicable Alternative.

SPOT Terminal's application does not demonstrate that the Project is the least environmentally damaging practicable alternative. The Corps is required to conduct an alternative analysis and determine what projects "are available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." 40 C.F.R. § 230.10(a)(2). The process for undertaking this analysis is clearly set out in the Corps' guidelines implementing the CWA. First, the Corps must define the project's "overall project purpose." *Id.* § 230.10(a)(2). Second, the Corps must determine whether a project is "water dependent." *Id.* § 230.10(a)(3). If the project is not water dependent, "the Corps apply a presumption that a practicable alternative that has a less adverse environmental impact on the wetland[s] is available." *Sierra Club v. Antwerp*, 362 Fed. Appx. 100, 106 (11th Cir. 2010) (citing 40 C.F.R. § 230.10(a)(3)). If the presumption applies, "the applicant must then rebut the presumption by 'clearly demonstrate[ing]' that a practicable alternative is not available." *Id.* In addition, when a discharge involves a "special aquatic site," the Corps must presume that all practicable alternatives that do not involve a discharge into that site would have less adverse impact on the aquatic ecosystem, unless SPOT can clearly demonstrate otherwise. 40 C.F.R. § 230.10(a)(3). "Special aquatic sites" include sanctuaries and refuges, wetlands, mudflats, vegetated shallows, coral reefs, and riffle and pool complexes. *Id.* §§ 230.40–230.45.

1. The Corps failed to define the project's overall purpose.

In the public notice for the applications, the Corps failed to clearly define the overall purpose of the project. In the public notice, the Corps stated that the applicant's alternatives analysis evaluated the "need" for the project. However, the alternatives analysis also failed to

define the purpose of the project. In the alternatives analysis provided with the Corps' Public Notice, SPOT Terminal listed numerous "site selection criteria" and "design criteria" for the project, including, for example, criteria that the offshore site not be in sensitive marine habitat. These criteria are geared more towards evaluating the possible location and impacts of the project rather than providing information on the overall aim of the project.

Even if the Corps relies on the purpose defined in the DEIS, that purpose is inadequate, as described more fully in comments on the DEIS. Just as in the NEPA analysis, the range of viable alternatives here cannot be arbitrarily constricted by adopting an overly narrow definition of the project's purpose. *Del. Riverkeeper Network v. U.S. Army Corps of Eng'rs*, 869 F.3d 148, 157 (3d Cir. 2017); *see also Jones v. Nat'l Marine Fisheries Serv.*, 741 F.3d 989, 1002 (9th Cir. 2013) ("[T]he Corps may not manipulate the project purpose so as to exclude alternative sites . . . ."). SPOT Terminal may not "define the project purpose narrowly 'in order to preclude the existence of any alternative sites and thus make what is practicable appear impracticable.'" *Friends of Santa Clara River v. U.S. Army Corps of Eng'rs*, 887 F.3d 906, 912 (9th Cir. 2018) (quoting *Sylvester v. U.S. Army Corps of Eng'rs*, 882 F.2d 407, 409 (9th Cir. 1989).

2. SPOT Terminal has not shown that its planned methods of construction are the least environmentally damaging.

SPOT Terminal must not only demonstrate that its project is preferable to alternative routes, but that its proposed method of construction at each waterbody or wetland crossing, including in the territorial sea, are the least environmentally damaging. 40 C.F.R. § 230.10(a). In particular, the methods the company has chosen at each of its 129 onshore waterbody crossings and the numerous wetland crossings will make a significant difference as to the extent of the impacts to waterways if the Project is approved.

SPOT Terminal's application falls far short of demonstrating that it will be employing the most environmentally-protective construction methods. Neither the alternatives analysis, provided as part of the application, nor the DEIS provide any analysis or comparisons of the different impacts of each alternative or the extent of possible damages for each of the alternatives. Although the alternatives analysis includes documentation of the total miles of pipeline that would cross various types of water and wetland habitat, the analysis contains no information about the actual environmental impacts of each alternative. *See* Alternatives Analysis at pp. 7–9. For example, the analysis does not include any information about the loss of migratory or shorebird habitat or the actual wetland or water impacts for each alternative. Nor does the analysis contain information about how much endangered sea turtle habitat would be impacted compared across the various alternatives or which alternatives would be least environmentally damaging to that vulnerable species. Likewise, the DEIS contains general information about potential impacts to varying habitats and wildlife but does not indicate what the impacts would be for each alternative or compare impacts across alternatives. *See* DEIS, Section 3.17—no comparison of impacts. Without this basic information, it is impossible for the Corps to know the extent of the wetlands, habitat, wildlife, socioeconomic, or other impacts the Project will cause or whether the construction method SPOT has selected will avoid adverse environmental impacts.

The law presumes that a less environmentally damaging practicable alternative exists when the project is not water dependent, and requires SPOT Terminal to demonstrate clearly that practicable alternatives, which would not involve discharge of fill material into special aquatic sites, are not available. 40 C.F.R. § 230.10(a)(3). The onshore portion of the SPOT Project is not "water dependent," and thus does not need to be routed adjacent to, in, or under sensitive aquatic and wetland ecosystems as proposed. The "Public Notice" does not indicate that any analysis of routes that avoid aquatic ecosystems was completed. Thus, the Corps must evaluate that and other alternatives.

Moreover, SPOT Terminal has not provided any analysis or justification that supports its choice of installation method at each wetland and waterway crossing. Of all the methods of construction that can be used, only horizontal direction drilling ("HDD") avoids wetland and waterway impacts and limits vegetation disturbance.[35] However, SPOT Terminal intends to use HDD at only 29 of 129 crossings, or 22 percent of the locations. Clearly, therefore, a less environmentally-damaging alternative would be to employ HDD at all, or at least substantially more at crossings. However, SPOT Terminal has not explained why it does not intend to use HDD at more, if not every, location. Moreover, it has proposed using installation methods, such as open cut trenching, that are known to cause more damage to wetlands and waterways than other construction options.[36] SPOT Terminal's proposal therefore is not the least environmentally-damaging alternative available.

3. The Corps has not analyzed all practicable alternatives.

SPOT Terminal has not made any showing that other alternatives are not practicable. *See* 40 C.F.R. § 230.10. Whether an alternative is practical takes account of cost, existing technology, and logistics in light of the overall project. *Id.* § 230.3(1). But as is discussed above, SPOT's application contains almost no discussion of alternatives and it does not consider alternatives for important components of its Project. SPOT has the burden of demonstrating that no feasible alternative exists. *See Utahns for Better Transp. v. U.S. Dept. of Transp.*, 305 F.3d 1152, 1163 (10th Cir. 2002). The Corps cannot blindly and uncritically accept SPOT's non-existent discussion of alternatives and its implicit and unsubstantiated position that no practicable alternative exists. *Friends of the Earth v. Hintz,* 800 F.2d 822, 835–36 (9th Cir. 1986).

In its alternatives analysis, the Corps only analyzed two sets of alternatives: different routes for the onshore pipeline and different locations for the Oyster Creek terminal, while ignoring other practicable alternatives. For example, the alternatives analysis does not evaluate any alternatives to building above-ground storage tanks at the Oyster Creek Terminal location. This is of particular concern because above-ground storage tanks carry higher levels of risk. While Texas does require performance standards for underground storage tanks, there are no such requirements for above-ground storage facilities, meaning the TCEQ relies on industry standards for storage tanks, and there are no specific design standards implemented by the state. Moreover, local fire marshals lack the power of inspection and enforcement, meaning that while

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[35] Export Report, prepared by Christopher P. Grobbel, dated Feb. 21, 2019, at 14–16, attached as **Exhibit B** to this letter. Dr. Grobbel prepared this report for a separate pipeline project in Minnesota. However, many of his analysis and findings are relevant to the SPOT Project.
[36] *See id.*

they can investigate fires and accidents after they have occurred, they are not allowed to conduct inspections to prevent those fires. A bill filed in the 86th Texas Legislative Session to attempt to improve that situation never even made it out of committee. Improving inspections, enforcement, and regulation are paramount and without those improvements, constructing above-ground storage tanks on the Gulf Coast would be very damaging to the residents of Brazoria County and the City of Surfside. The Corps needs to thoroughly evaluate practicable alternatives, like using underground storage tanks.

In addition, SPOT Terminal and the Corps failed to analyze any alternative pipeline routes for the offshore pipeline portion of the Project as part of its 404 permit application, even though the 404 guidelines require the Corps to adopt any practicable alternatives with less environmental impacts to aquatic ecosystems, including the territorial sea. 40 C.F.R. §§ 230.10; 230.3(c), (r), (s). The U.S. Coast Guard and the Maritime Administration considered a few alternative offshore pipeline routes in the DEIS. However, the DEIS failed to analyze an alternative location for the offshore pipelines that would reduce the risk of rupture from dropped anchors, the biggest threat in the context of oil spills. DEIS at 2-74. The SPOT DEIS projects that there is a high likelihood of a subsea pipeline rupture due to dropped or dragged anchors. *Id.* at 4-30. The DEIS provides criteria the agency considered when assessing potential alternatives for the offshore route but does not list minimizing risk of rupture as a consideration. *Id.*

Roughly 50 percent of all spills between 1964 and 2015 were caused by anchor damage. The subsea pipelines for the SPOT Project will be located within 0.5 miles of the nearshore public anchorage zone. However, all alternative routes considered in the DEIS for this project run directly along the edge of the anchorage area, *id.* at 2-74, instead of areas that avoid this danger.

The Corps' failure to consider any alternative offshore routes and to verify these routes as the sole alternatives for the offshore pipeline segment of the project violate its own regulations and imposes a high risk of disastrous oil spill which has not been evaluated or mitigated. Based on these factors, the Corps should deny the 404 permit for the SPOT Project.

Finally, there is no indication that the Corps considered non-pipeline alternatives and alternatives that do not involve discharge of dredged or fill material into waters of the United States. Such alternatives could include generation of equivalent quantities of cleaner non-fossil fuel based fuels. As is discussed in greater detail in comments on the DEIS, there are system alternatives other than the SPOT Project that would fulfill SPOT Terminal's desire to allow the export of crude oil from excess production. The Corps must fulfill its duty to evaluate and choose the least damaging alternative to ensure that the adverse impacts of the Project's construction and operation are avoided. The Corps also must verify information supplied by SPOT Terminal in its evaluation of the proposed project impacts.

C. The SPOT Project Has the Potential to Jeopardize Threatened and Endangered Species Under the Endangered Species Act.

The Corps must not permit the proposed project if it causes or contributes to degradation of the environment. 40 C.F.R. § 230.10. The Corps' analysis of environmental impacts must

include an evaluation of whether the proposed project jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act. 40 C.F.R. § 230.10(b)(3). As many as 27 federally listed threatened and endangered species and an area of critical habitat exist within the SPOT Project area. DEIS at 3-174–83. The endangered or threatened species include four different bird species, five sea turtles, and five marine mammals, along with other reptiles, fish and invertebrates. *Id.* The SPOT Project will affect an additional 10 state-listed threatened or endangered species. DEIS at 3-183. As described more fully in comments on the DEIS, SPOT's evaluation of the impacts of its project on these threatened and endangered species is wholly inadequate. The Corps must require SPOT to supplement its application with information that will allow the Corps to fully evaluate the threats of the SPOT Project on the continued existence of these vulnerable species.

D. The Proposed SPOT Project Must Avoid Destruction of Wetlands to the Extent Practicable.

Corps regulations require that the Corps, in evaluating a proposed project and issuing Section 404 dredge and fill permits, avoid destruction of wetlands to the extent practicable. 33 C.F.R. § 320.4(r). As further guidance, the Section 404(b)(1) guidelines recognize that "[t]he discharge of dredged or fill material in wetlands is *likely* to damage or destroy habitat and adversely affect the biological productivity of wetlands ecosystems by smothering, by dewatering, by permanently flooding, or by altering substrate elevation or periodicity of water movement." 40 C.F.R. § 230.41(b) (emphasis added). The guidelines also state that a 404 permit should only be issued if the applicant takes "all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United States." 40 C.F.R. § 230.91(c)(2).

According to the applicant, the proposed Project would intersect approximately 101 acres of wetlands and cause both temporary and permanent impacts to these sensitive and critical ecosystems. The Corps must verify this information and evaluate the scope of impacts, including both the size and extent of impacts to determine whether there are permanent impacts along the proposed pipeline's route that have not yet been disclosed, whether conversion of various types of wetlands will result in a loss of wetland function and/or a change of use of the waterbody, which constitute significant adverse impacts. 40 C.F.R. § 230.11. The Corps must also analyze the interconnections between streams, ponds, and the recharge of groundwater as well as how each wetland supports the existing habitat, wildlife, and plants. *Id.* § 230.11(a), (b), (c), (e). Finally, the Corps must also evaluate whether the existing wetlands provide flood protection or relief and how those functional services would be impacted. *Id.* § 230.41(b) ("Discharging fill materials in wetlands . . . may modify the capacity of wetlands to retain and store floodwaters and to serve as a buffer zone shielding upland areas from wave actions, storm damage and erosion.").

Although SPOT Terminal provided "functional assessment worksheets" as part of its mitigation plan, those worksheets only contain vague indexes of pre-project and post-project values in numeric form. They fall far short of meeting the guidelines' requirement that the Corps make detailed factual determinations, including the obligation to "determine in writing the potential short-term or long-term effects." 40 C.F.R. § 230.11. They also do not appear to include information about effects on important characteristics of the wetlands like circulation or salinity, the structure and function of the ecosystems, including the loss of environmental values,

or the secondary or cumulative effects, as the guidelines require. *Id.* The Corps must independently verify the functional assessment and must provide detail about the nature and degree of all relevant effects. The Corps must provide that information to the public for comment before it uses it to make a decision about the 404 permit.

The Corps should also address temporal impacts—the time it will take for each type of wetland to recover. Such temporal impacts must be considered as part of any mitigation or compensation plan. *Id.* § 230.93 (instructing the consideration of temporal losses as part of a mitigation plan and requiring a mitigation ratio greater than one-to-one to account for such losses, when necessary). These evaluations are missing from the 404 application materials and the DEIS. Although the DEIS acknowledges that compensatory mitigation "may be required for temporal losses longer than 12 months," it does not indicate the acreage of wetlands that will suffer such temporal losses.

As described more fully below, SPOT and the Corps have provided minimal information about their plan to provide for mitigation or compensation of any of these wetland losses. The Corps must also include monitoring as part of its compensation and mitigation plans to determine the rate of restoration and additional measures if mitigation or compensation should fail.

Further, as set forth above, because the proposed land-based pipeline infrastructure is not "water dependent," the Corps must evaluate alternatives that do not impact these sensitive aquatic ecosystems and that seek to avoid wetland destruction altogether.

The Corps also must evaluate the cumulative and secondary impacts to wetlands along the full pipeline route, including the cumulative impacts of the permanent removal of wetlands along the pipeline route near the terminal, and the conversion of wetlands. 40 C.F.R. § 230.11(g), (h). The Corps must identify the cumulative loss of wetland function resulting from the proposed project at a site specific, watershed, and regional scale. This analysis is missing from SPOT Terminal's 404 application and the DEIS.

Finally, neither the 404 application materials nor the DEIS disclose the construction method that SPOT Terminal will use to cross the wetlands (i.e., open cut trenches, HDD, etc.). As explained above, the type of construction method significantly affects the amount and extent of impacts to the wetlands. The Corps must disclose the construction method that SPOT will use to cross each wetland area and thoroughly evaluate the impacts from those methods as well as alternative methods of crossing that would be practicable.

E. The SPOT Project DEIS Indicates that the Project Would Cause or Contribute to Significant Degradation of Waters of the United States.

Under the Section 404(b)(1) guidelines, the Corps may not permit discharges of fill material that will "cause or contribute to significant degradation" of wetlands. 40 C.F.R. § 230.10(c). Examples of effects contributing to significant degradation include adverse effects on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, as well as the loss of fish and wildlife habitat or the loss of the capacity of a wetland. *See id.* § 230.10(c)(2), (3). It also includes significant adverse effects of discharges on recreational, aesthetic, and economic values. *Id.* § 230.10(c)(4). The extent and duration of the impacts, as well as the habitats'

uniqueness, are relevant considerations. *See id.* § 230.10(c); *Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Eng'rs*, 524 F.3d 938, 949 (9th Cir. 2008).

As an initial matter, neither the 404 application materials that the Corps provided as part of its Public Notice nor the SPOT Project DEIS address the "significant degradation" finding that the Corps must make under the 404(b)(1) guidelines. That omission is significant because a positive finding would elevate the importance of SPOT's proposed mitigation measures. Indeed, where the Corps' decision to issue a permit relies on a National Environmental Policy Act ("NEPA") document, flaws in the underlying analysis may call into question the Corps' finding that the project would not result in significant degradation of wetlands. *See Friends of the Earth v. Hall*, 693 F. Supp. 904, 945–46 (W.D. Wash. 1988). The Corps should explain how the proposed mitigation would avoid significant degradation of aquatic ecosystems. *Cf. Sierra Club v. U.S. Army Corps of Eng'rs*, 614 F. Supp. 1475, 1495–96, 1517 (S.D.N.Y. 1985) (holding arbitrary the Corps' decision to issue a landfill permit where its conclusions about impacts on a fishery differed dramatically from those in a draft EIS), *aff'd in part, rev'd in part on other grounds*, 772 F.2d 1043 (2d Cir. 1985).

Moreover, the DEIS indicates that the project would in fact cause significant degradation of aquatic ecosystems. In comments on the project, the Environmental Protection Agency ("EPA") stated that the project components "taken individually and considered cumulatively, could have significant impacts to vital coastal and wetland resources."[37] The EPA also expressed concern that the project would negatively impact restoration efforts in the proposed project area. *Id.* at 5. The EPA encouraged the agencies to thoroughly analyze direct, indirect, and cumulative impacts to wetlands and special aquatic sites, including seagrass beds, and any efforts to minimize or compensate for impacts. The EPA also highlighted that the EIS should also address the same impacts to resident and migratory shorebirds and sea turtles as well as the introduction of invasive species. *Id.*

The DEIS does not contain sufficient information about the direct, indirect, and cumulative impacts of the project on aquatic resources. Further, the minimal information and analysis contained in the DEIS indicate that significant degradation is likely. As described in more detail below, the Project will likely result in significant degradation. The Corps must thoroughly evaluate the risk of degradation and ensure that adequate mitigation is in place to minimize the damage. The DEIS states generally that sedimentation will occur which will displace or kill fish and other aquatic wildlife. DEIS at 3-27. However, the DEIS does not include a thorough examination of these potential impacts. The project also occurs in an extremely risky area for hurricanes and floods.

1. The Project would both cross and be located near extremely sensitive habitat.

The SPOT Project will cross over or be located adjacent to several sensitive habitats. As described more fully above, the Project will permanently destroy or convert at least 15 acres of wetlands and has the potential to significantly degrade much more wetland acreage. The Project will also affect a number of other important habitats.

[37] Letter from EPA to U.S. Coast Guard, dated Feb. 21, 2019, at p. 4 in Appendix D of the DEIS.

The onshore portion of the SPOT Project would occur within 150 feet of 25 different public and private drinking water supplies. DEIS at 3-8. Construction of the onshore pipelines could affect well yields and water quality near the work zones. The DEIS also acknowledges that an oil spill could contaminate drinking water and cause major impacts or significant degradation. DEIS at 3-13–14. As described more fully in comments on the DEIS, SPOT did not provide critical information about its response plans or resources to respond to an oil spill. There is a high risk that groundwater near the SPOT Project will be significantly degraded from construction or from an oil spill that will inevitably occur over the life of the Project.

Onshore pipelines would pass under the "Bluewater Highway," an access point for 40 miles of public beach, from Surfside Beach to Galveston, and they would extend beneath a public beach in Surfside Beach, a village with a high number of recreational tourists. DEIS at 3-356. Spills and leaks would directly impact these beautiful beaches and harm the recreational tourist industry in the area. The DEIS fails to even consider impacts to recreational tourism from the Project. See DEIS at 3-358 (only considering impacts from construction and operation). The Corps needs to take a close look at the potential of harm to recreational tourism in the area.

The Project also crosses 129 waterbodies, including 48 perennial waterbodies, 21 intermittent waterbodies, 50 ephemeral waterbodies, and 10 ponds. The construction activities will affect surface waters through modification, sediment loading, an increase in turbidity, the release of chemicals and nutrients, and decreased dissolved oxygen concentrations. DEIS at 3-27. SPOT plans to use open-cut stream construction to cross 69 of the 129 waterbodies. This method of trenching involves the clearing of entire stream banks and would cause increased turbidity and impacts to the aquatic creatures. It is not adequately environmentally protective.[38] Even if SPOT successfully implements its proposed mitigation measures, the DEIS still concludes that the impacts from open-cut trenching will be moderate. DEIS at 3-28 to 3-29. The DEIS defines moderate impacts to be those that degrade water quality and increase contaminant levels, sediment, or biota to levels shown to have the potential to harm organisms. DEIS at 3-3. Such impacts are significant. Both small and large oil spills are expected to occur over the life of the SPOT Project which will also cause significant impacts to these waterbodies.[39]

The SPOT Project is located within sensitive flood zones. The new Oyster Creek terminal and about 7 miles of onshore pipeline is located in a 500-year flood zone and 25 miles of onshore pipeline will be located in a 100-year flood zone. DEIS at 3-30. The Project could be damaged from flooding impacts, which would result in leaks to transmission lines and potential releases of hazardous chemicals or sediment. These risks create the potential for significant degradation.

The Project will also affect important onshore habitats that are needed to support ecosystems in the region. The Project will cross two priority protection habitats, Oyster Creek and Swan Lake. These are coastal habitat areas that must be protected from the spill of oil or other hazardous materials, based on state protections. DEIS at 3-75. They provide critical habitat to fish, oysters, codgrass, marsh, and shorebirds and wading birds. *Id.* The DEIS does not

[38] *See* Grobbel Report at 14–15.
[39] *See* Susan C. Lubetkin analysis attached to DEIS comment letter.

provide any estimates of the amount of damage that SPOT's construction may bring to these important habitats but acknowledges that oil spills will cause moderate to major harm. *Id.* at 3-86. The DEIS also explains that SPOT plans to remove important forested areas that could take decades to regrow and resemble pre-impact forest conditions. The DEIS estimates that the SPOT Project would clear about 105 acres of forest, significantly degrading that habitat, and that operations would result in the permanent conversion of an additional 6 acres of forested land. DEIS at 3-82–83. The DEIS also states that construction risks the spread of several noxious and invasive species, but does not estimate the extent of impacts that could result. DEIS at 3-83. The Corps must take a close look at the risk of spreading invasive species and whether that will cause significant degradation to ecosystems in the region.

The project will also occur adjacent to the Brazoria National Wildlife Refuge. DEIS at 2-69. The Refuge contains valuable salt and fresh water marshes as well as important wintering habitat for migratory birds. *Id.* It is a popular destination for recreation, hunting, and fishing. *Id.* Onshore pipelines will be located next door to the refuge. DEIS 3-101. One of the construction workspaces will be only 0.1 miles away from the refuge. DEIS at 3-248. Depending on the time of year, a spill or leak in coastal waters could impact much of the refuge in a short amount of time. The onshore pipeline route also crosses many freshwater streams that empty into the refuge. Oil and other hazardous chemicals from spills and sediment would thus travel into the refuge, impacting wildlife and ecosystems. The Project is north of two other important wildlife preserves: the San Bernard National Wildlife Refuge, and the Justin Hearst Wildlife Management Area—both of which provide important habitat for birds and other wildlife. DEIS at 3-355. Spills and other discharges could potentially impact these important areas. The Corps must thoroughly analyze all potential impacts to these valuable wildlife areas.

Offshore, the SPOT Project will negatively affect a number of important marine habitats. About a half-acre of oyster reefs occur within the construction workspace of the SPOT Project. DEIS at 3-88. Oyster reefs are sensitive habitats within the subtidal and intertidal zones of coastal waters. State managers consider them to be essential fish habitat and coastal natural resources. *Id.* Neither the Corps nor SPOT identified the amount of oyster reef outside the construction zone that is also likely to be indirectly impacted by sediment or changes to the marine waters from construction. And, although the DEIS recognizes that oil spills would cause major impacts to these habitat areas, the DEIS did not estimate the acreage of oyster reef communities that could potentially be affected. *See* DEIS at 3-90–94. The Corps must thoroughly analyze and report the amount of oyster reef habitat that may be affected directly and indirectly by construction and operation of the Project. The SPOT Project is likely to cause significant degradation to these sensitive areas.

The SPOT Project will cross three marine protected areas: the Reef Fish Stressed Area, the Reef Fish Longline and Buoy Gear Restricted Area, and the Texas Shrimp Closure Area. DEIS at 3-95. Federal managers established these marine protected areas to protect adult and spawning reef fish and shrimp populations. *Id.* The DEIS concludes that construction will not affect fishing restrictions that are associated with these areas but ignores impacts that will occur to fish resources that these areas protect. DEIS at 3-97. Construction and operation as well as spills can harm and kill fish species near the SPOT Project. There is a high likelihood that the SPOT Project will significantly degrade the value of these areas to fishing communities.

The SPOT Project will occur about 40 miles away from the Flower Gardens Bank National Marine Sanctuary. The Flower Garden Banks National Marine Sanctuary ("FGBNMS") is one of 14 national marine sanctuaries and 2 marine national monuments in the United States.[40] FGBNMS is the only sanctuary site located in the Gulf of Mexico and encompasses three salt dome formations that are home to dense, colorful coral reef and coral-sponge communities with more than twenty species of hard corals (including massive star and brain corals) that attract species such as manta rays, spotted eagle rays, sea turtles, hammerheads, whale sharks, and endemic species such as the Mardi Gras wrasse and golden smooth trunkfish.[41] Four hundred miles away from the nearest tropical reefs, the FGBNMS serves an important and unique role in providing rich coral reef habitat in the northernmost reaches of the continental United States.[42] Although the DEIS claims that construction and operation of the SPOT Project will not affect the sanctuary, the spill models predict that the most likely spill size would spread over 40 miles from the site and a worst credible spill would spread 93 miles, an area that would reach the sanctuary area. *E.g.*, DEIS at 3-113. The Corps must thoroughly analyze whether a spill from the SPOT Project would significantly degrade this valuable sanctuary area.

Finally, seagrass communities are critically important to the marine environment in the Gulf. As the DEIS acknowledges, they provide critical shelter to a diverse number of aquatic species, including endangered species, like the loggerhead sea turtle, and they are critical to protect against environmental disturbances like hurricanes. DEIS at 3-77. There are six species of seagrass communities in the Gulf. *Id.* The offshore pipelines for the SPOT Project would be located close to these important communities, and an oil spill would directly expose those areas to oil and other hazardous chemicals. DEIS at 3-86. The DEIS ignores all impacts to seagrass from construction and operation of the SPOT Project. Seagrass communities can be significantly degraded by sediment and damaged by the release of oil or other chemicals. These communities provide vital foraging habitat for endangered sea turtle species, like the loggerhead sea turtle. The construction and risk of spills both present risks of significant degradation.

2. The Project's proposed crossing methods would damage wildlife.

The proposed SPOT Project will cross habitat that supports a number of valuable wildlife species and cause impacts to that wildlife. Affected wildlife include marine, freshwater, and estuarine fish species; prey species; coastal, shoreline, and migratory birds; marine mammals; and sea turtles. The Project will also affect a number of threatened and endangered species, including threatened coral species and the Texas prairie dawn flower. The SPOT Project will cause ground disturbance that could kill these flowers and lead to long-term habitat degradation from run-off. DEIS, App. E at 69. The DEIS did not survey the extent of listed flower habitat

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[40] NOAA, Management Plan Review: Flower Garden Banks National Marine Sanctuary, https://nmsflowergarden.blob.core.windows.net/flowergarden-prod/media/archive/document_library/mgmtdocs/mprfactsheet.pdf.

[41] National Marine Sanctuary, Flower Garden Banks, Natural Setting https://flowergarden.noaa.gov/about/naturalsetting.html; National Marine Sanctuary, Flower Garden Banks, Celebrating 20 Years, https://flowergarden.noaa.gov/about/20things.html.

[42] National Ocean Service, Flower Garden Banks National Marine Sanctuary, https://oceanservice.noaa.gov/news/oct15/flower-garden.html.

that could be affected because SPOT's field surveys "were not conducted during the bloom period when they would be identifiable." DEIS, App. E at 67.

The SPOT project will cause significant impacts to coastal, marine, and migratory birds. Both onshore and offshore portions of the Project are located within the Central Flyway, one of only four major migratory routes for birds in North America. DEIS 3-100. It also occurs within a bird conservation region that protects 42 different birds of conservation concern, including the Red Knot, a species listed as threatened under the Endangered Species Act. *Id.* at 3-102–5. The SPOT Project will also affect three other listed bird species: the eastern black rail, piping plover, and whooping crane. DEIS, App. E at 53–61. The DEIS acknowledges that the Project could cause displacement, stress, and direct mortality to birds. DEIS at 3-106. The Project will also cause disturbance from noise and lighting along with habitat fragmentation and degradation. DEIS at 3-108. Some of these impacts, like noise and lighting would be long-term and moderate. DEIS at 3-109, 3-111. Spills will also cause moderate to major impacts to these animals. DEIS at 3-115. The DEIS acknowledges that the Project will negatively affect nesting habitat for the eastern black rail, wintering habitat for the piping plover, red knot, and whooping crane, and migration habitat for the whooping crane. DEIS, App. E, at 52, 55, 57, 60.

The 129 waterbodies that the SPOT Project crosses provide habitat for several populations of adult and spawning freshwater fish. As described above, the open cut construction that SPOT intends to use to cross the majority of these waterbodies could cause substantial impacts to those fish.

The offshore portion of the Project will also impact benthic organisms and plankton and reduce prey availability for many fish species. DEIS at 3-124; 3-133–34. Pipeline installation would disturb about 1,212 acres of benthic habitat and 3,075 acres of seafloor. DEIS at 3-124. Although the impacts may only be short-term, the Project would reduce prey temporarily for a number of different fish and could significantly affect fish populations in the area. Moreover, persistent discharges could cause more long-term impacts to prey communities. DEIS at 3-138.

The Project also occurs in an area that is vital for commercial and recreational fisheries. DEIS at 3-158–59. The Project would have localized impacts on fish larvae, fish prey, and habitat, reducing the available fish and shrimp. DEIS at 3-160. It would also convert natural open water habitat to artificial reef-like habitat, a change that can have long-term impacts on the availability of fish species. DEIS at 3-160. Small and large spills will also negatively affect these estuarine and marine fish communities.

Sixteen species of marine mammals occur within or near the Project Area, five of which are listed as endangered or threatened. DEIS at 3-139. The Project will increase vessel traffic considerably, putting these animals in danger of vessel strike. *See, e.g.*, DEIS at 3-149–51. And, as described more fully in DEIS comments, the DEIS does not consider the increase vessel traffic from a higher number of massive VLCCs that will be moving through the Project area. Of particular concern, critically endangered Northern right whale migratory corridors occur in areas that would be frequented by these vessels and endangered sperm whales occur in deep waters south of the SPOT Project. DEIS, App. E at 78, 84. These animals would be vulnerable to vessel

strikes. The Project will also cause impacts from noise and spills of oil and other hazardous chemicals.[43]

Finally, the Project will occur in habitat that supports five listed sea turtle species: the green sea turtle, hawksbill sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, and loggerhead sea turtle. DEIS, App. E at 61–67. The DEIS acknowledges that the SPOT Project occurs in the vicinity of important nesting beach habitat for these species. DEIS, App. E at 63. Of most concern, construction activities would occur during the Kemp's ridley and loggerhead sea turtle nesting season and would include up to five months of 24-hour construction and nighttime work lights. DEIS, App. E at 65–66. Yet, the DEIS does not provide enough information to determine the full extent of impacts to this habitat. The loss of even one nesting season or a significant number of hatchlings could significantly degrade sea turtle populations. The Corps must thoroughly evaluate the extent of beach habitat and number of hatchlings that could be directly or indirectly impacted and whether there will be significant degradation of this habitat or population.

3. SPOT Terminal has ignored substantial risks of oil spills posed by the Project to waterways and wetlands.

One of the greatest risks the Project poses to water quality is an oil spill. There have been numerous disasters involving spills of the kind of petroleum product SPOT Terminal wishes to transport in the Project, many of which have caused billions of dollars in damage and unknown degradation to water quality and the environment. The analysis of spill risks in the DEIS contain numerous flaws and inconsistencies that seriously undermine the integrity of the analysis. Much information is missing about these risks and evidence that SPOT Terminal has measures in place to adequately guard against such a spill is lacking A full description of the problems is detailed in comments on the DEIS and in the comments provided by Susan C. Lebetkin, attached to the DEIS comments. The Corps must fully analyze the risk of oil spills from the Project.

F. SPOT Terminal's Compensatory Mitigation is Inadequate.

If the Corps finds that the SPOT Project would significantly degrade wetlands, it may issue a permit conditioned on minimization of, or compensation for, impacts. *See City of Olmsted Falls, Ohio v. EPA*, 435 F.3d 632, 637–38 (6th Cir. 2006); *Ohio Valley Envtl. Coal. v. U.S. Army Corps of Eng'rs*, 674 F. Supp. 2d 783, 790 (S.D. W. Va. 2009). However, inadequacies in plans for minimization or compensation may invalidate the decision to allow discharge. *See All. to Save the Mattaponi v. U.S. Army Corps of Eng'rs*, 606 F. Supp. 2d 121, 133–34 (D.D.C. 2009). According to the Section 404(b)(1) guidelines, "[t]he fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by . . . permits." 40 C.F.R. § 230.92(a)(1). Thus, the Corps "*must* determine the compensatory mitigation to be required in a . . . permit, based on what is practicable and capable of compensating for the aquatic resource functions that will be lost as a result of the permitted activity." *Id.* (emphasis added). Compensatory mitigation may include restoration, enhancement, establishment, and preservation

[43] *See* Comments of Susan C. Lubetkin, attached to DEIS comment letter.

of aquatic ecosystems. *Id.* § 230.93(a)(2). In general, it should take place within the same watershed where unavoidable impacts occur. *See id.* § 230.93(c)(1).

The DEIS does not include a Compensatory Mitigation Plan. There is a placeholder and general outline of the plan (see Appendix P and Section 3.3.5.4), but that does not provide analysis to demonstrate how the compensation and mitigation will alleviate the significant degradation. The Corps' Notice for Public Comment identifies the possibility of a mitigation bank to offset the wetland impact. However, the Corps' Notice leaves open the possibility that a wetland bank may not be available, in which case the applicant would be required to develop a permittee-responsible mitigation plan to be approved by the Corps prior to issuance of the permit decision. Indeed, the Corps cannot issue this permit with such significant information lacking from the application and without any opportunity for the public to comment on it. As such, the Corps and applicant must fully develop the plan and provide an opportunity for public to comment prior to issuing a 404 permit.

G. The Proposed Project Must Not Cause or Contribute to Water Quality Degradations.

The Corp's own guidelines state that "[n]o discharge of dredged or fill material shall be permitted if it: (1) Causes or contributes … to violations of any applicable State water quality standard." 40 C.F.R. § 230.10(b)(1). The proposed project will affect biologically significant streams, and other waterbodies and tributaries. The Project will cross 48 perennial waterbodies, 21 intermittent waterbodies, 50 ephemeral waterbodies, and 10 ponds (129 crossings in total). Construction and operation of the project will increase pollutant loads to these waterbodies. Accordingly, the Corps must evaluate whether discharges from the proposed project will violate state water quality standards and lead to degradation of these waterbodies.

SPOT Terminal's application does not demonstrate that discharges from its project will comply with water quality standards. On the contrary, there is substantial cause for concern that the Project will have unacceptably adverse impacts to ecosystems of concern. As described above, the project will discharge in over a hundred waterbodies. Further the Project will cross at least five waters that are already impaired, i.e. do not currently meet applicable water quality standards. DEIS at 3-18. Failure to show that the Project actually will comply with water quality standards and be sufficiently protective of waterways to comply with the CWA's requirements makes the Project ineligible for a permit under Section 404. *See* 40 C.F.R. § 230.10(c).

H. The Corps Must Take All Appropriate Steps to Minimize Potential Adverse Impacts of the Proposed Project.

In addition to determining whether there are less damaging alternatives routes or activities to the proposed pipeline project, the Corps also must take all appropriate steps to minimize the project's adverse impacts. 40 C.F.R. § 230.10. The Section 404(b)(1) guidelines prohibit issuance of a permit "unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." 40 C.F.R. § 230.10(d). Subpart H of the guidelines provides examples of actions the Corps might take to minimize adverse effects, *see id.*, which courts have viewed as the "correct factors" for the Corps to consider when making its determination as to whether these steps have been taken. *Sierra*

Club v. U.S. Army Corps of Eng'rs, No. Civ.A. 05-1724JAP, 2005 WL 2090028, at *17 (D.N.J. Aug. 29, 2005). These measures include: locating and confining the discharge to minimize smothering of organisms, 40 C.F.R. § 230.70(a); selecting the disposal site, the discharge point, and the method of discharge to minimize the extent of any plume, *id.* § 230.70(e); timing the discharge to minimize impact, *id.* § 230.72(d); selecting sites or managing discharges to confine and minimize the release of suspended particulates to give decreased turbidity levels and to maintain light penetration for organisms, *id.* § 230.73(g); setting limitations on the amount of material to be discharged per unit of time, *id.* § 230.73(g); avoiding changes in water current and circulation patterns which would interfere with the movement of animals, *id.* § 230.75(a); and avoiding sites having unique habitat or other value, *Id.* § 230.75(c).

SPOT Terminal's application lists a number of measures that may fit within these guidelines. Yet the application does not propose any steps to confine discharges or to spread impacts over time, possibly by adopting a more extended construction schedule—measures that in some circumstances will lessen impacts, according to the Section 404(b)(1) guidelines. *See id.* The Corps must consider these and any other appropriate and practicable measures that could minimize impacts before issuing a permit.

Based on the Corp's notice, SPOT Terminal intends to purchase mitigation credits elsewhere from two mitigation banks. However, SPOT Terminal did not include compensation for the conversion of 1.5 acres of ESS to EEM wetlands. The Corps must explain why the purchase of credits is not also required for these conversions. SPOT Terminal also must discuss mitigation and/or avoidance of other environmental impacts of the project throughout the Project's full acreage. Neither the Public Notice nor the DEIS provides this detail. The Corps must first evaluate the comprehensive environmental impacts of the proposed project and require avoidance and mitigation measures for all potential impacts, and allow for public participation on the impacts and proposed avoidance and mitigation plans.

I. There Is No Showing that the SPOT Project Is in the Public Interest.

The Corps must deny the Section 404 permit and the Rivers and Harbors Act Section 10 permit because the SPOT Project is not in the public interest. Pursuant to the Corps' regulations implementing the Clean Water Act and Section 10 of the Rivers and Harbors Act, the "decision whether to issue a permit will be based upon an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest." 33 C.F.R. § 320.4(a)(1). Determining that the Project is in the public interest requires weighing its benefits against its costs. *Nat'l Parks Conservation Ass'n v. Semonite*, 311 F. Supp. 3d 350, 377 (D.D.C. 2018). Here, SPOT Terminal has failed to provide the Corps with the information it needs to make that determination. Indeed, as is discussed above there is evidence that there are numerous significant impacts that will result from the Project. Based on this record, the Corps cannot find that the Project is in the public interest, particularly given that the Project is not needed, is not responding to actual demand for oil, would have extremely significant climate change impacts, and puts Texas' waterways at risk from oil spills.

The public interest review is intentionally broad and should include all relevant issues that could impact the environment, human health, and natural resources. The Corps' regulation instructs:

> Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process. That decision should reflect the national concern for both protection and utilization of important resources.

33 C.F.R. § 320.4(a)(1). The Corps' regulations include a non-exhaustive list of factors that may be relevant for each individual project. 33 C.F.R. § 320.4(a)(1) states in part:

> All factors which may be relevant to the proposal must be considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

Consistent with the mandate that the Corps consider "all those factors that become relevant," this non-exhaustive list of factors includes issues beyond those directly related to the impacts of in-water work. *Id.* In other words, by requiring an analysis of "cumulative impacts" and by including a non-exhaustive, far-reaching list of factors, the Corps is clearly required to conduct a broad analysis of the public interest that captures all relevant impacts associated with the project and not just those that result directly from the permitted activities.

1. The project is not in the public interest because it will exacerbate the effects of climate change.

The Corps' public interest determination must consider the SPOT Project in the context of climate change. The SPOT DWP would have the capability of loading VLCCs and other crude oil carriers at a rate of 85,000 barrels per hour, 2 million barrels per day, 365 days a year. DEIS at 4-26. The SPOT Project is one of several proposed projects in the Gulf of Mexico designed for crude oil export that would lock in fossil fuel development for decades to come, thereby exacerbating the impacts of climate change. These impacts would be felt globally as well as locally. The coastal communities impacted by this project are at ground zero for the impacts of climate change, including sea level rise and loss of critically protective wetlands. The Texas coastline is eroding at an average rate of 2 to 10 feet per year, and Freeport is experiencing sea level rise at a rate of 17 inches per 100 years. Hurricanes in the Gulf of Mexico are expected to increase in severity, with an increase proportion of category 3, 4, and 5 storms, a ten percent increase in cyclone damage for the most intense hurricanes, and a 30–40 percent increase in precipitation, which would exacerbate flooding in these regions.[44] Sea level rise has already cost

[44] Bruyère, C. L., and Coauthors, 2017: *Impact of Climate Change on Gulf of Mexico Hurricanes*. NCAR Technical Note NCAR/TN-535+STR, 165 pp, doi:10.5065/D6RN36J3

Texas homeowners over $76 million in potential property value.[45] A project that would cause or worsen these impacts undermines the public interest. The Corps must therefore make a determination that the SPOT Project is not in the public interest. At the very least, the Corps' public interest determination must consider "[t]he relative extent of the public and private need" for the project, 33 C.F.R. 320.4(a)(2)(i), in light of climate change and the urgent need to rapidly transition to clean, sustainable energy sources.

Courts routinely require the Corps to consider the direct, indirect, and cumulative effects—including non-aquatic effects—of the *installations* the Corps' dredge and fill permits authorize. For example, in *Hillsdale Environmental Loss Prevention, Inc. v. U.S. Army Corps of Engineers*, the court considered the validity of the Corps' NEPA analysis when issuing a § 404 dredge and fill permit for the construction of an intermodal rail/truck terminal. 702 F.3d 1156, 1162–63 (10th Cir. 2012). In its NEPA analysis, the Corps "considered both [the] direct and reasonably foreseeable indirect impacts to land use, air quality, noise, traffic, water quality, threatened and endangered species, and cultural resources" from the operation of the intermodal terminal. *Id.* at 1164. The court made clear that the Corps must look beyond the effects occurring directly within its jurisdictional waters.

Climate change, driven primarily by the combustion of fossil fuels, poses a severe and immediate threat to the health, welfare, ecosystems, and economy of the United States and the world. In recognition of these threats, the Paris Agreement, adopted on December 12, 2015, codifies the international, scientific consensus that climate change is an "*urgent and potentially irreversible threat to human societies and the planet* and thus requires the widest possible cooperation by all countries."[46]Accordingly, the Paris Agreement commits all signatories to hold the long-term global average temperature "to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels."[47] Immediate and aggressive greenhouse gas emissions reductions are necessary to avoid the worst effects of climate change.[48]

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[45] Trevino, Perla, *Study: Sea Level Rise Causes Texas Coastal Homeowners To Lose Millions In Potential Property Value*, HOUSTON CHRONICLE (Apr. 23, 2019), https://www.houstonchronicle.com/news/houston-texas/texas/article/Study-Sea-level-rise-causes-Texas-coastal-13786803.php.

[46] Paris Agreement, Draft Decision -/CP.21, Proposal by the President Re: Adoption of the Paris Agreement, Preamble (emphasis added). Although President Trump has announced his intent to withdraw the United States from the Paris Agreement, that process will take four years and could be overridden in the next presidential election. Moreover, the Paris Agreement represents the international consensus to address greenhouse gas emissions, and therefore remains a relevant consideration in determining our nation's energy needs. The United States remains an obligated party to the Paris Agreement until November 4, 2020.

[47] *Id.* Art. 2(1)(a).

[48] *See, e.g.*, EPA, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, (Dec. 15, 2009) (detailing the detrimental effects of climate change); J. M. Melillo *et al.*, Eds., Climate Change Impacts in the United States: The Third National Climate Assessment, U.S. Global Change Research Program (2014) (same).

For example, a 2016 analysis found that carbon emissions from developed reserves in currently operating oil and gas fields and mines would lead to global temperature rise beyond 2°C.[49] Excluding coal, currently operating oil and gas fields alone would take the world beyond 1.5°C.[50] To stay well below 2°C, the study recommends that "[n]o new fossil fuel extraction or transportation infrastructure should be built, and governments should grant no new permits for them" and that some fossil fuel fields "—primarily in rich countries—should be closed before fully exploiting their resources."[51] Based on these projections and recommendations, the Corps must not permit the SPOT fossil fuel infrastructure project that would lock in massive oil and gas extraction for decades to come.

More recent studies corroborate these findings. For example, on November 3, 2017, the U.S. Global Change Research Program—comprised of the nation's top climate scientists—published a final report "designed to be an authoritative assessment of the science of climate change, with a focus on the United States, to serve as the foundation for efforts to assess climate-related risks and inform decision-making about responses."[52] Human-caused climate change has made a substantial contribution to the global average sea level rise of seven to eight inches since 1900.[53] Global average sea levels are expected to continue to rise—by at least several inches in the next 15 years and by 1–4 feet by 2100.[54] Sea level rise will be higher than the global average on the United States' Gulf coast, exacerbating coastal flooding in these regions.[55] Tidal flooding will continue increasing in depth, frequency, and extent this century.[56] The western Gulf of Mexico is already experiencing significant relative sea level (RSL) rise caused by the withdrawal of fossil fuels and groundwater.[57] Additionally, there is a projected increase in flooding along Gulf coast states like Texas due to the increased intensity of hurricanes caused by climate change.[58]

The report highlights the urgent need to act if we are to address climate change successfully. It finds that "[carbon dioxide ("CO2")] emissions are required to stay below about 800 [gigatons of carbon (GtC)] in order to provide a two-thirds likelihood of preventing 3.6 [degrees Fahrenheit (°F)] (2°C) of warming."[59] It tells us how much more can be emitted until that limit is reached—approximately 230 GtC.[60] Therefore, according to the report, "[s]tabilizing global mean temperature to less than 3.6 [°F (2°C)] above preindustrial levels requires

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[49] Oil Change International, The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production at 5 (Sept. 2016).
[50] *Id.*
[51] *Id.*
[52] U.S. Global Change Research Program, Climate Science Special Report, at 1 (Nov. 4, 2017).
[53] *Id.* at 10.
[54] *Id.*
[55] *Id.*
[56] *Id.* at 27.
[57] *Id.* at 346.
[58] *Id.* at 349.
[59] *Id.* at 31–32.
[60] *Id.* at 32.

substantial reductions in net global CO2 emissions prior to 2040 relative to present-day values and likely requires net emissions to become zero or possibly negative later in the century."[61]

Increasing the odds of meeting these targets requires meeting even stricter carbon budgets.[62] Given that global emissions in 2014 alone totaled 10 GtC,[63] humanity is rapidly consuming the remaining burnable carbon budget needed to have even a 66 percent chance of meeting the 2.0°C, let alone the 1.5°C, temperature increase limit. Development, like the SPOT Project, that would directly cause increased fossil fuel development and consumption will seriously hinder our ability to avoid the worst effects of climate change and is therefore not in the public interest.

2. The project risks dangerous oil spills that demonstrate the project is not in the public interest.

Offshore oil and gas development has frequently led to both chronic and disaster-level spills, and climate change is exacerbating conditions that can cause spills. The Corps' obligation under NEPA to analyze oil spills in conjunction with its issuance of § 404 permits is well-recognized. In *Stop the Pipeline v. White*, 233 F. Supp. 2d 957, 967 (S.D. Ohio 2002), the Corps was required to analyze oil spills in issuing a § 404 permit for an oil pipeline. 233 F. Supp. 2d 957, 967 (S.D. Ohio 2002). Similarly, *Ocean Advocates* held that the Corps was required to analyze risks of tanker oil spills before issuing a § 404 permit for a dock extension, because "a 'reasonably close causal relationship' exists between the Corps' issuance of the permit, the environmental effect of increased vessel traffic, and the attendant increased risk of oil spills." *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 868 (9th Cir. 2005) (quoting *Dep't of Transp. v. Public Citizen,* 541 U.S. 752, 767 (Jun. 7, 2004)).

Accordingly, the Corps must evaluate an oil spill that could result from the project, including a very realistic spill scenario on a scale commensurate with the crude capacity of the pipeline and that associated with increased VLCC traffic under the project. The proposed Project will result in the construction and operation of new pipeline transporting up to 2 million barrels per day of oil through Gulf waters, as well as the increased use of very large crude carriers. These VLCCs are of unprecedented size, carrying significantly more crude than the existing smaller capacity vessels. Given the loading capacity of the DWP and associated infrastructure, it can be reasonably foreseen that multiple VLCCs will be loading each day. As such, the risk of a medium, large, or even catastrophic spill will increase under the proposed project. A reasonably close causal relationship exists between the Corps' issuance of the Section 404 permit and the environmental effects of increasing high-volume pipelines and maximum capacity vessel traffic, including the attendant increased risk of large oil spills. Thus, as the case law suggests, the Corps must do a spill impact analysis commensurate with the scale of the project. As described more fully in comments on the DEIS, the Corps has failed to do an adequate analysis in this instance.

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[61] *Id.* at 31, 393.

[62] *See* M. Meinshausen *et al.*, *Greenhouse gas emission targets for limiting global warming to 2 degrees Celsius*, 458 Nature 1158–1162, 1159 (2009); Carbon Tracker Initiative, Unburnable Carbon 2013: Wasted capital and stranded assets.

[63] *See* CO2-Earth, Global Carbon Emissions, http://co2now.org/Current-CO2/CO2-Now/global-carbon-emissions.html.

Further, the inherent risk of oil spills from projects like SPOT is heightened by climate change. In addition to rising sea level, increased flooding, and increased intensity of hurricanes all of which could increase the likelihood of damaging the project infrastructure and result in spills—climate change will likely make recovery from oil spills significantly harder. With ocean warming and acidification caused by climate change, the use of biomarkers to monitor environmental responses to pollutants, like those coming from oil spills, will be less accurate as many commonly used organisms used to monitor oil spill impacts may no longer be available due to species loss or migration, or change in species behavior.[64] This risk is not adequately addressed by the company's development plan. The irreparable effects a spill could have on the Gulf of Mexico aquatic and coastal environment, a region already impacted by past spills like the 2010 Deepwater Horizon disaster, underscore the inadvisability of both onshore and offshore oil export development. Issuing a permit for the SPOT Project is therefore not in the public interest.

3. Construction of the SPOT DWP and associated onshore components would have substantial negative impacts on wetlands and wildlife.

The SPOT Project is also not in the public interest because the pipelines and new terminal would destroy sensitive wetlands and harm wildlife, including critically endangered and threatened species. Specifically, Corps regulations recognize that most wetlands constitute productive, valuable public resources, and perform critical functions that are important to the public. 33 C.F.R. § 320.4(b)(1), (2). The regulations enumerate these important wetland services, including contributing to food chain production, providing general habitat and nesting, spawning, rearing, and resting sites for aquatic and land species; serving as prime natural recharge areas; and acknowledging their unique character. *Id.* § 320.4(b)(2)(i)–(viii).

The proposed Project would have impacts on at least 20 federally listed species and 2 candidate species. DEIS at 3-174. For example, critically endangered Kemp's Ridley sea turtle nesting sites have been observed by local citizens near the site at which the project's offshore pipeline would enter the Gulf of Mexico. The SPOT Project construction activities also would occur within designated critical habitat for the loggerhead sea turtle. DEIS, App. E at 90–91. The Corps' permit would therefore directly and indirectly impact turtles inhabiting adjacent Gulf waters and nearby beaches by disturbing nesting sites and disrupting their behavior during construction activities both onshore and offshore and in the event of an operational discharge or spill event. Further, the Eastern Black Rail, a candidate species for listing as threatened, is known to be present along the pipeline route. *Id.* at 53. Eastern Black Rails are found in coastal marshes and freshwater wetlands and build their nests in dense vegetation near the ground, making the wetlands that will be disturbed during pipeline construction and maintenance ideal habitat. Threats to the species and its continued existence are compounded by other actions causing habitat loss, such as alteration of wetlands, land management practices, grazing, impoundments and climate change-induced sea level rise, severe weather events, and changes in wildlife frequency and intensity. *Id.*

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[64] Hartl, Mark, *Why Climate Change is Making it Harder to Monitor Marine Pollution*, The Conversation (Sept. 25, 2018), http://theconversation.com/why-climate-change-is-making-it-harder-to-monitor-marine-pollution-102672.

Project construction would affect approximately 101 acres, including 39.9 acres of palustrine emergent (PEM) wetlands, 2.8 acres of palustrine scrub-shrub (PSS) wetlands, 6.7 acres of palustrine forested (PFO) wetlands, 45.1 acres of estuarine emergent (EEM) wetlands, and 6.6 acres of estuarine scrub-shrub (ESS) wetlands. Construction of the Oyster Creek Terminal site would result in permanent impacts to approximately 6.1 acres of PEM wetland and 0.2 acre of PFO wetland. The proposed project would also result in the conversion of approximately 6.6 acres of PFO wetlands to PEM wetlands, 0.4 acre of PSS wetland to PEM wetland, and 1.5 acres of ESS wetlands to EEM wetlands within workspace and access road areas, including the permanent pipeline easement. In total, approximately 14.8 acres of wetlands would be permanently filled or converted as a result of the proposed project. Removal of wetland vegetation during construction could alter the ability of wetlands to function as flood and erosion control buffers. Due to this, conversion of wetlands could have significant impacts on the environment, including increased flooding and loss of habitat for species.

Finally, the project's significant potential climate change impacts puts Texas's waterways and other sensitive ecosystems and habitat at risk from oil spills, and would negatively affect local environmental justice communities.

In sum, the Corps cannot find that the Project is in the public interest given the project's clear localized impacts on wetlands, species, and nearby impacted communities. This is particularly true given that the Project is not responding to local or even national demand for oil.[65]

4. The SPOT Project would solely benefit the oil and gas industry while placing significant burdens on the environment, local communities and the public at-large.

The Corps' regulations require it to consider a number of factors in issuing Section 404 permits, including but not limited to, economics, energy needs, consideration of property ownership, and the needs and welfare of the people. 33 C.F.R. § 320.4(a)(1). Significant quantities of crude oil will be produced as a result of the proposed project, but not for domestic use. As the project purpose states, the oil will be exported to the global market, with profits directly benefiting the fossil fuel industry all while placing massive burdens on the environment and coastal communities, many of which are environmental justice communities. The project and connected infrastructure impose a higher risk of oil spill impacts on surrounding communities, which would result in ecological harm and financial strain. Oil spill impacts lead to decreased tourism and adverse impacts to industries, like commercial fishing, that rely on a healthy Gulf

[65] Market saturation of crude oil at low prices from both Russia and Saudi Arabia, as well as decreased demand for oil due to COVID-19, has caused massive losses for the United States oil industry. Demand for U.S. oil will likely shrink in 2020 due to this virus and market prices. Proposed oil infrastructure projects like the SPOT Project are not needed, as export of U.S. crude oil will result in financial loss in an oversaturated global market while still significantly impacting local communities. Horowitz, *OPEC Unveils Plan To Slash Production After Coronavirus Slams Oil Prices*, CNN (Mar. 6, 2020) https://www.cnn.com/2020/03/05/investing/opec-oil-prices-coronavirus/index.html.

coast. These impacts will be further compounded by the ongoing impacts of climate change, such as sea level rise, already affecting these communities. Moreover, the project would lock in massive quantities of dirty, climate change-inducing fossil fuel development for decades to come.

In sum, the public burden would be significant given the project's sole purpose of allowing private oil and gas industry interests to profit. As such, issuing a permit for the SPOT Project is not in the public interest.

J. The Corps Must Independently Verify All Information Provided by SPOT Terminal.

The CWA requires that the Corps independently evaluate and verify the information supplied by the applicant in determining whether to issue a Section 404 permit. 40 C.F.R. § 1506.5(b). When information for an EIS is prepared by the applicant, 'the district engineer is responsible for independent verification and use of the data, evaluation of the environmental issues, and for the scope and content." *Friends of the Earth v. Hintz*, 800 F.2d 822, 835 (9th Cir. 1986).[66] Thus, "while the Corps could, and did, base its permit decision exclusively on the information provided by [the applicant], the Corps nonetheless has an obligation to independently verify the information supplied to it." *Id.*; *see also Sierra Club v. Van Antwerp*, 526 F.3d 1353, 1368 (11th Cir. 2009) (Kravitch, J, concurring part and dissenting in part) ("when information submitted by an interested party is 'specifically and credibly challenged as inaccurate, the Corps has an independent duty to investigate.'") (*citing Van Abbema v. Fornell*, 807 F.2d 633, 642 (7th Cir. 1986)); *Greater Yellowstone Coalition,* 359 F.3d 1257, 1269 (10th Cir. 2004).

As such, the Corps must not take SPOT Terminal's analysis of impacts and possible alternatives at face value. The Corps must independently determine the scope and extent of impacts to aquatic ecosystems and the environment, and determine whether there are any other less damaging alternatives to the proposed pipeline. The Corps' failure to do so violates its own regulations. 40 C.F.R. § 1506.5(a).

For example, the Corps should verify all information supplied by SPOT Terminal concerning the risks of oil spills and SPOT Terminal's ability to respond to a worst credible discharge of oil. The information that SPOT Terminal provided regarding the probabilities, frequencies, and size of a spill varies widely from a third-party report that the Coast Guard commissioned in connection with the DEIS. The Corps should commission an independent engineering analysis to verify SPOT Terminal's information about the risks of oil spills and its ability to respond to a worst credible discharge into waterways. It must also demonstrate to the public that it has completed this independent analysis to ensure meaningful public participation. 33 U.S.C. § 1344(a).

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[66] *Hintz*, 800 F.2d at 831, cited 33 C.F.R. Part 230 as the source of the independent verification requirement; however, the correct current cite for that requirement is 33 C.F.R. Part 325.

IV. CONCLUSION

For the foregoing reasons, the Corps should deny SPOT Terminal's CWA, Section 404 and Rivers and Harbors Act, Section 10 permit applications. Should the Corps decide to approve the permits, it must first provide substantial additional analyses, including detailed factual determinations about the full extent of direct, indirect, cumulative, and secondary impacts from the SPOT Project. Because critical pieces of this analysis are missing from the Public Notice, as described above, the Corps should allow additional public comment on that supplementary material once it is provided to the public, as required under its regulations.

Sincerely,

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EXHIBIT A

From: Brink, Kristie A CIV USARMY CESWG (USA)
To: Mary O"Hara
Subject: Request for Extension of Comment Period - SWG-2018-00751
Date: Wednesday, March 11, 2020 8:53:20 AM
Attachments: Ltr re Extension Request 3.6.20 Final.pdf

Ms. O'Hara,

Thank you for your participation in the Corps' Public Notice process for the proposed SPOT Project (SWG-2018-00751).

The Corps' regulations at 33 CFR 325.2(d)(2) specifically state that "the comment period should not be more than 30 days nor less than 15 days from the date of the notice." The regulation goes on to state that "before designating comment periods less than 30 days, the district engineer will consider: i) whether the proposal is routine or noncontroversial, ii) mail time and need for comments from remote areas, iii) comments from similar proposals, and iv) the need for a site visit." The Corps determined that a full 30-day public notice was warranted for the proposed project; therefore, the considerations at i-iv for comment periods less than 30 days are irrelevant.

As the Corps' Public Notice stated, we are a cooperating agency in the development of the draft EIS and are required to submit our comments to the USCG/MARAD by the end of the draft EIS comment period on March 23, 2020. As such, the Corps' Public Notice period was timed to ensure our comments on the draft EIS are submitted to the USCG/MARAD in a timely manner, and that our comments incorporate input we receive during our Public Notice process.

However, 33 CFR 325.2(d)(2) does state that the district engineer may extend the comment period up to an additional 30 days, if warranted, when taking into consideration other pertinent factors. It is understandable that the groups listed in your letter might need additional time to consolidate input from members within the group to form a comprehensive comment submission, and that the Surfside community members/landowners did not receive sufficient time to provide comments. Therefore, in consideration of these factors and the Corps' responsibilities as a cooperating agency, the Corps will extend the public comment period for the groups and individuals listed in your letter (attached) to March 20, 2020.

Please note, all comments received by the Corps, even those received after the Public Notice comment period ends, will be recorded in the administrative record and will be taken into consideration in our evaluation of the permit application.

I am the Project Manager for the SPOT Project, so all Public Notice comments may be submitted directly to me. If you have any questions, please don't hesitate to contact me.

Sincerely,

Kristie Brink
Regulatory Project Manager, Policy Analysis Branch

U.S. Army Corps of Engineers
Galveston District - Regulatory Division
5151 Flynn Parkway, Suite 306
Corpus Christi, Texas 78411-4318
Office: 361-814-5847 x.1005
Kristie.A.Brink@usace.army.mil

-----Original Message-----
From: Mary O'Hara [mailto:mohara@earthjustice.org]
Sent: Friday, March 6, 2020 6:39 PM
To: swg_public_notice
Cc: bhardy@earthjustice.org
Subject: [Non-DoD Source] Request for Extension of Comment Period - SWG-2018-00751

Please see attached letter requesting an extension of the comment period on SPOT Terminal, LLC Clean Water Act Section 404 and Rivers and Harbors Act Section 10 Permit Application, # SWG-2018-00751.

Thank you,

Mary O'Hara

Litigation Assistant II | Oceans Program

(Pronouns: She/Her/Hers)

810 Third Ave., Suite 610

Seattle, WA 98104

T: 206.343.7340, ext. 1031

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EXHIBIT B

Grobbel Environmental & Planning Associates
PO Box 58 Lake Leelanau Michigan 49653

February 21, 2019

Submitted via electronic mail to CEMVP-L3R-PN-Comments@usace.army.mil

Thomas Hingsberger
St. Paul District, Corps of Engineers
Regulatory Branch, CEMVP OP-R
180 Fifth St. E., Suite 700
St. Paul, Minnesota 55101-1678

Re: Comments on Application No. 2014-01071-TJH

Dear Mr. Hingsberger,

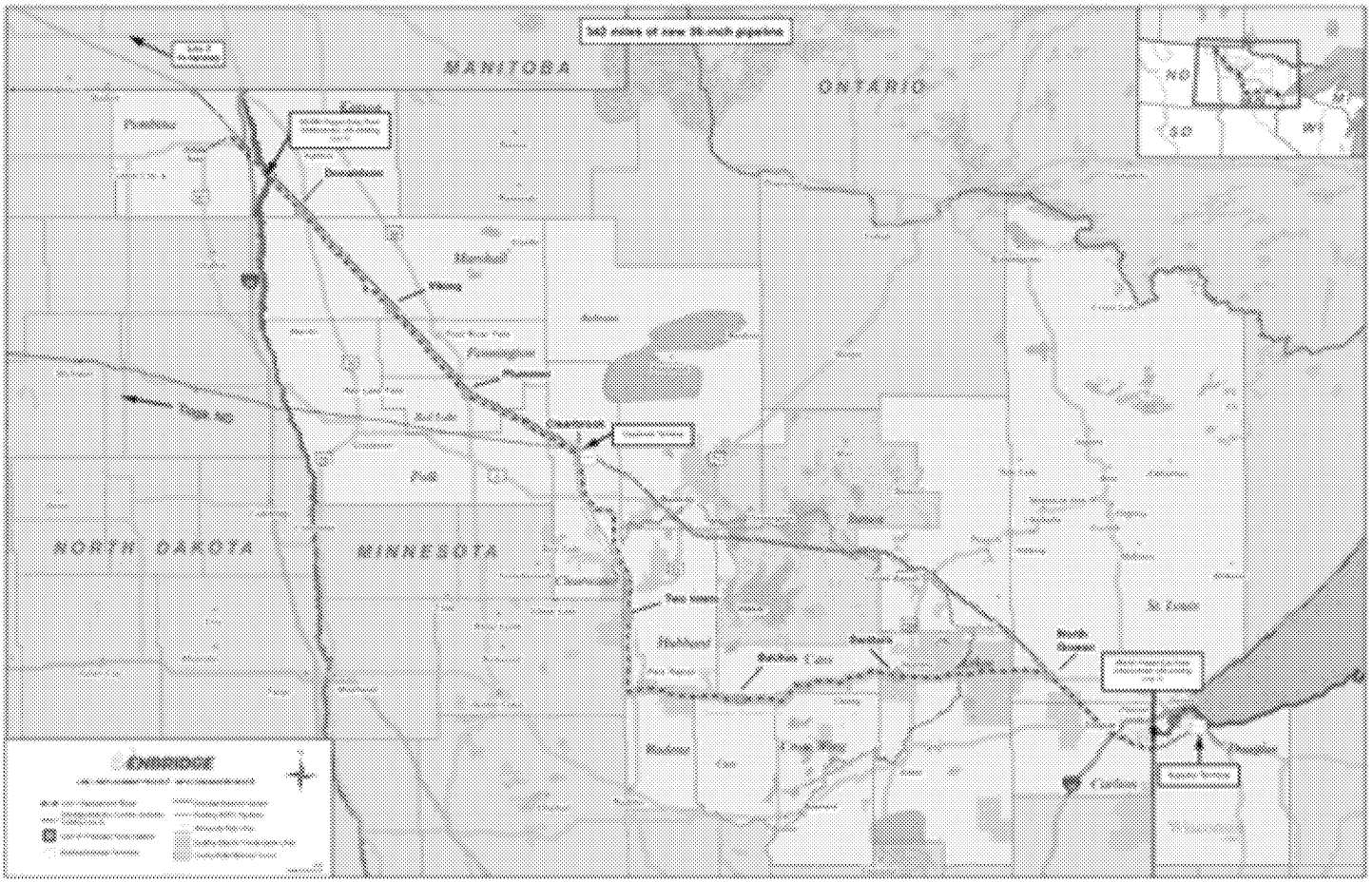
I. Introduction

At the request of the Sierra Club and Earthjustice, Grobbel Environmental & Planning Associates has provided these comments relative to the proposed replacement and partial re-routing of Enbridge Inc.'s Line 3. Enbridge's Line 3 is a fifty-seven (57) year old, 34-inch diameter steel pipeline which runs for 1,097 miles extending from Alberta, Canada to Superior, Wisconsin. The replacement of approximately 282 miles of the existing Line 3 in Minnesota with 330 miles of new 36-inch diameter, 0.515 inch thick pipeline[1] and its associated facilities is proposed from the Red River valve in North Dakota to the Minnesota/Wisconsin border. The pipeline project is subject to U.S. Army Corps of Engineers' (U.S. ACE) jurisdiction and review pursuant to Sections 10/404 of the federal Clean Water Act.[2] Known pipeline integrity issues exist within the existing Enbridge Line 3 including external corrosion, stress corrosion cracking, long seam cracking. The proposed replaced Line 3 may convey up to 760 thousand barrels of heavy, light and mixed crude oil per day.[3]

[1] The new Line 3 Pipeline is proposed within a 50 foot wide permanent right-of-way and 95 and 120-foot wide construction corridors.

[2] Federal Clean Water Act, as amended, 33 U.S.C. §1251 *et seq.* (1972) and its administrative rules.

[3] It is acknowledged that a replaced Line 3 may convey up to 915,000 barrels per day if optimized.



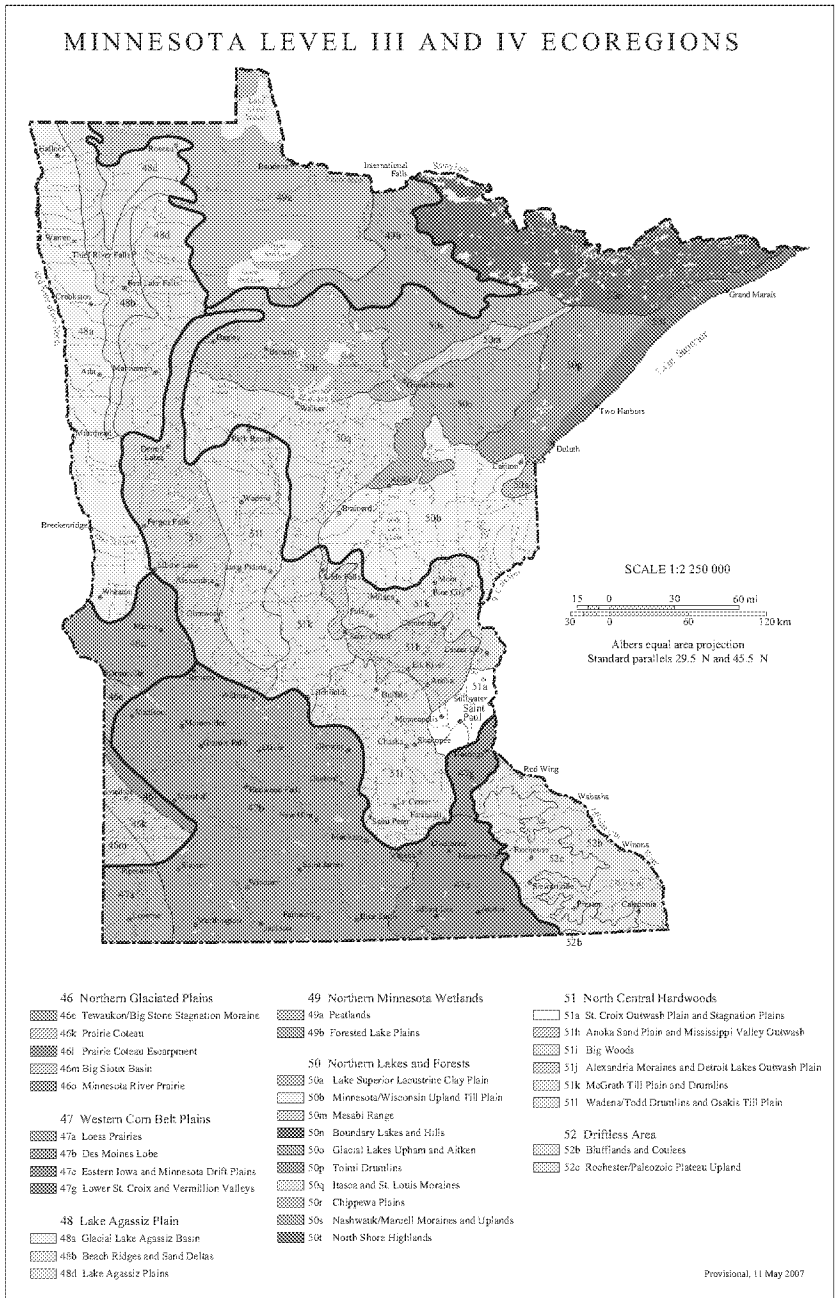
II. Background

A. Proposed Line 3 Pipeline Route

Enbridge's proposed replaced and relocated Line 3 route crosses agricultural land, forestland and fallow agricultural land and in part follows existing utility corridors across thirteen (13) counties in Minnesota and a short portion within Pembina County, North Dakota. From the North Dakota border a replaced Line 3 would follow the existing Line 3 route to the Clearbrook Terminal in in Clearwater County, Minnesota (MN). Then the route would turn south to generally follow an existing third party crude oil pipeline right-of-way to Hubbard County, MN. Line 3 would then run easterly generally following existing electric transmission lines until it joins the Enbridge right-of-way in St. Louis County, MN. This section of the pipeline route would pass through the Fond du lac Reservation to Enbridge's Superior Terminal which is adjacent to Lake Superior at the MN/ Wisconsin border in Carlton County, MN.

Based on information and belief, Enbridge's Line 3 currently conveys a form of crude oil mix developed in the Athabasca oil sand fields in northeastern Alberta, Canada consisting of a mixture of crude "bitumen," silica sand, clay and water referred to as diluted bitumen or "dilbit." Dilbit is a bitumen[4] diluted with one or more

[4] Bitumen a viscous, black, sticky tar-like substance refined from crude oil by fractional distillation.



lighter petroleum products, typically natural gas condensate such as naphtha.[5]

B. Northern and Central Minnesota

The portion of Minnesota through which a replaced Line 3 pipeline is proposed owes its land forms, wetlands and freshwater bodies and waterways to historic continental glaciation. The most recent of which covered this area with glacial ice during the Pleistocene epoch of the Quaternary glacial period approximately 10,000 years before present.

The proposed Enbridge Line 3 pipeline route in northwest Minnesota would cut through the Lake Agassiz Plain ecoregion which possesses important unbroken native prairies and grasslands. Northwest Minnesota also possesses numerous pothole wetlands within the Northern Minnesota Wetlands ecoregion.[6]

The proposed pipeline route would also cross the nationally important Mississippi Headwaters region within Northern Lakes and Forest ecoregion in central Minnesota. Due to its relatively little historic development when compared to other

[5] "Dilbit Bitumen" is reduced in viscosity through addition of a diluent (or solvent) such as condensate or naphtha. A "diluent" is any lighter hydrocarbon, usually pentanes plus, added to heavy crude oil or bitumen in order to facilitate its transport on crude oil pipelines. "Condensate" is a mixture comprised mainly of pentanes and heavier hydrocarbons recovered as a liquid from field separators, scrubbers or other gathering facilities or at the inlet of a natural gas processing plant before the gas is processed. "Dilbit Blends" are made from heavy crude oils and/or bitumens and a diluent, usually natural-gas condensate for the purpose of meeting pipeline viscosity and density specifications, where the density of the diluent included in the blend is less than 800 kg/m^3. If the diluent density is greater than or equal to 800 kg/m^3, the diluent is typically synthetic crude and accordingly the blend is called synbit. "Synbit" is a blend of bitumen and synthetic crude oil that has similar properties to medium sour crude. Source: *Alberta Oil Sands Bitumen Valuation Methodology*, 2008-9995, Calgary, Alberta: Canadian Association of Petroleum Producers, Dec 2008. *Canada's Oil Sands: Opportunities and Challenges to 2015* (PDF) (Energy Market Assessment). Calgary, Alberta: National Energy Board. May 2004. pp. 115–118. ISBN 0-662-36880-0. Retrieved 14 Mar 2012.

[6] A "pothole" wetland is a shallow pond and wetland feature dominated by grasslike "hydrophytic" or water-loving vegetation.

affected ecoregions, these areas possess the highest surface water quality in Minnesota.[7] The Mississippi Headwater area encompasses about one-quarter of the state, and contains the headwater source of the Mississippi River. The Crow Wing, Pine, Sauk, Rum and other small rivers join with a small stream emanating from Itasca State Park, and is widely thought of as the source of the Mississippi River. These waters provide drinking water for more than 1 million downstream residents. Sandy soils in this region are overlain with deep forests interspersed with wetlands. These important freshwaters replenish groundwater which provides drinking water to local communities and are intimately connected to the area's high quality lakes and rivers and the aquatic life they support. North-central Minnesota is the State's land of lakes region, typified by numerous high quality inland lakes left behind following the last ice age. This region is characterized by broad, sandy jack pine barrens and pine plains - which are highly vulnerable to contamination from releases of hazardous substances.[8] The proposed Line 3 pipeline route in the central portion of Minnesota traverses the Glacial Lakes Upham & Aitken, Itasca and St. Louis Moraine, Chippewa Plains, and Minnesota/Wisconsin Till Plains ecoregions.

The northeastern region of Minnesota within which a replaced Line 3 is proposed is the Big Woods ecoregion, adorned with high quality muskeg wetlands within sandy pine plains - also sensitive and highly vulnerable natural resources.[9]

C. Proposed Waterway Crossings

Enbridge's Line 3 replacement project as proposed would also cross two-hundred and eleven (211) waterbodies and sixteen (16) major watersheds within Minnesota.[10] Watersheds proposed to be crossed in Minnesota include the Red River of the North-Tamarac River, Snake Rivers, Red River of the North-Grand Marais Creek, Red Lake River, Clearwater River, Mississippi Rivers-Headwaters, Crow Wing/Straight River subwatershed, Pine River, Leech Lake River, Mississippi River-Grand Rapids, Kettle River, Nemadji River and St. Louis River. Enbridge's Line 3 replacement project proposes to cross eighty-five (85) perennial streams, one-hundred and six (106) intermittent streams, and twenty (20) ephemeral streams. Fifty-six (56) of these watercourses are designated public waters by the State of Minnesota, and three (3) are considered navigable and thereby federally-regulated pursuant the CWA.[11] Importantly, five (5) Minnesota-designated trout streams (i.e., 2 in Hubbard County, and one each in Cass, Atkin and Carlton Counties), and three (3) wild rice waters (i.e., one

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[7] Review of Line 3 Draft Environmental Impact Statement, R. Merritt, P.G., Merritt Hydrologic and Environmental Consulting, LLC, undated, p. 11 quoting the Line 3 Project Draft Environmental Impact Statement (DEIS), p. 5-61.

[8] *Ibid.*, pp. 16-20.

[9] A "muskeg" wetland is a large, peat-accumulating acidic bog wetland.

[10] Project Summary: U.S. Army Corps of Engineers, St. Paul District, Regulatory Branch, 180 5th Street E, Suite 700, Saint Paul, MN 55101, https://www.mvp.usace.army.mil/Enbridge_Line3/, and *U.S. Army Corps of Engineers - St. Paul District Supplementary Information for Application*, Enbridge Energy, Limited Partnership - Line 3 Replacement, September 2018., p. 23.

[11] *U.S. Army Corps of Engineers - St. Paul District Supplementary Information for Application*, Enbridge Energy, Limited Partnership - Line 3 Replacement, September 2018., p. 25.

each in Red Lake, Hubbard and Wadena Counties) are proposed to crossed by the new Line 3.[12] Merritt (undated) reports that the proposed replacement Line 3 would or could potentially impact twenty-six (26) wild rice areas within 1/2 mile of the pipeline, and that potential impacts to wild rice areas area not adequately assessed.[13] Emergent wetlands yielding wild rice are sensitive to water quality changes, such as increased sediment loading from construction activities causing erosion and deposition.[14] *Discrepancies in the number of wild rice areas proposed for impact or potentially impacted by the project, and the methods for their identification should be adequately assessed and disclosed to the public prior to any final agency action in this matter.*

Enbridge has also proposed to cross twenty-one (21) waterbodies with pipeline construction access roads, and two (2) permanent bridges crossing waterways to access pipeline valve sites. Of these proposed waterway crossings, four (4) are proposed to be built with unspecified in-stream support technologies.[15] *These in-stream crossing plans should be disclosed and adequately prior to any final agency action in this matter.*

III. Environmental Impact Analysis

A. Bedrock Geology

The potential for damage to Enbridge's proposed Line 3 replacement from seismic activity is given no description or assessment in project scoping studies and documents. Enbridge's proposed route traverses four (4) geologic sub-provinces, including the Wabigoon, Quetico, Wawa and Penoken Orogen bedrock sub-provinces. Importantly, this proposed pipeline route also crosses four (4) major thrust faults, i.e., the Florain Batholith, Fourtown, Leech Structural Discontinuity and an unnamed thrust fault, and seven (7) other mapped geologic faults.[16] *The structural integrity of the proposed replaced Enbridge Line 3 pipeline should be evaluated in association with these inherently unstable bedrock fault lines, and the likelihood of pipeline damage or integrity failure from seismic events should be evaluated and made available for public review prior to any final agency decision-making.*

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[12] *Ibid.*, p. 25.

[13] Review of Line 3 Draft Environmental Impact Statement, R. Merritt, P.G., Merritt Hydrologic and Environmental Consulting, LLC, undated, pp. 15-16.

[14] Final Environmental Impact Statement, Exxon Coal and Minerals Co., Public Service Commission of Wisconsin, Wisconsin. Dept. of Natural Resources, University of Wisconsin, Madison, 1986, 446 pages.

[15] *Ibid.*, p. 26.

[16] Geologic Map of Minnesota, Bedrock Geology, University of Minnesota, M. Jirsa, et al., 2011.

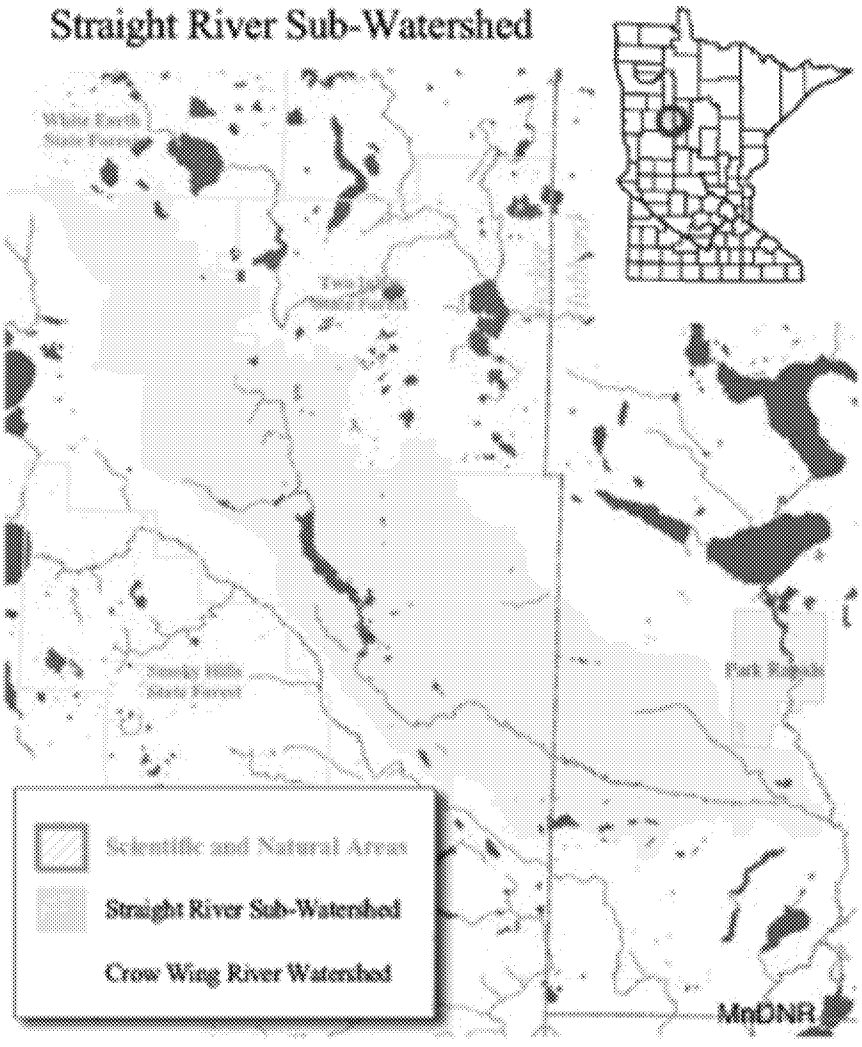
B. Groundwater Resources

The potential impact to groundwater resources, and groundwater connectivity to surface water and wetland resources is given little description or assessment in Line 3 replacement project scoping studies and impact assessment documents. *North and central portions of the proposed replaced Line 3 pipeline route possess extensive, high quality groundwater resources and areas of sandy surficial soils, resulting in the high vulnerability of groundwater to contamination from surface spills of hazardous materials such as petroleum.* The Minnesota Department of Natural Resources in March 2017 designated the Straight River Basin in Becker and Hubbard Counties as a Groundwater Management Area as "an area of specific concern where groundwater resources are at risk of…degraded (water) quality."[17]

We concur with other's findings that "(t)hough the (Minnesota DNR) identifies the Straight River Basin as one of the important Minnesota aquifers and significant scientific studies have been completed for the area, the DEIS ignores its importance. The (proposed) pipeline route is designed to travel through the heart of this highly sensitive…basin…The (Minnesota) DEIS must conduct a complete groundwater analysis of the potential impact from a spill within this…Pineland Sands outwash aquifer."[18] *We highly recommend that the U.S. ACE adequately complete its own Environmental Impact Assessment (EIS) and undertake a meaningful analysis of the potential for groundwater and groundwater/drinking water impact from the proposed project, including the potential for catastrophic and smaller pipeline releases and other spills during construction.*

[17] Review of Line 3 Draft Environmental Impact Statement, R. Merritt, P.G., Merritt Hydrologic and Environmental Consulting, LLC, undated, pp. 22-25.

[18] *Ibid.*, p. 25.



C. Known Impacts to Wetlands and Aquatic Resources

The Enbridge Line 3 replacement project would directly impact 1,046.5 acres of wetlands, with approximately one-mile of wetlands impacted adjacent to the Red River in North Dakota, and 10.8 acres of wetlands permanently impacted through the proposed construction of above-ground pump stations and valve sites. The replaced Line 3 will generally be buried to a depth of 4 feet within wetland and waterway crossings.

Generally-accepted engineering practices and common wetland policy and regulations require: a) the maximal avoidance of wetland impact, b) the minimization of unavoidable wetland impact (i.e., based upon a robust wetland crossing or fill site by site alternatives analysis), and c) the mitigation of significant wetland and/or aquatic resource impacts, such as near-site replacement wetland construction and/or wetland preservation at compensation ratios resulting in a net increase in wetland acreage. Enbridge proposes to construct a replaced

Line 3 pipeline impacting 1,400 distinct wetland areas.[19] Referencing the U.S. Fish and Wildlife Cowardin Wetland Classification System, 58.2% of proposed wetland crossings are within palustrine[20] emergent (PEM), 23.7% are forested (PFO), 15.7% are shrub-scrub (PSS), and 2.6% are aquatic bed (PUB) wetland types. *We find that large, high quality wetlands with significant vegetative species diversity, high aquatic organism habitat value, and/or stream crossings are proposed to be impacted by Line 3 replacement within fifty-four (54) sensitive areas.*

These ecologically sensitive areas include but are not limited to wetlands at or near project markers #835-836, #842 (with a small stream), #843-843.5, #857.5, #859.5-860.5, #864.5, #876.5, #875.5 (at the Clearwater River), #884, #892, #895-895.5, #905.5, #909.5-910, #911-912, #914, #917, #919, #921.5, #922-922.5 (with a small stream), #924-924.5, #925, #931.5, #933, #937.5-938, #939, #940-941, #945.5-946.5 (with a small stream), #953-960.5 (within extensive glacial pothole area), #961-962, #963.5 (at Hay Creek), #966.5 (running adjacent to Long Lake), #974 (at the Straight River), #976 (at the Shell River), #981-981.5 (at the Shell River), #982.5, #983-983.5 (at the Shell River), #996.5, #998-999.5, #1000.5-1001.5 (at Big Swamp Creek), #1009, #1012.5-1060, #1020-1020.5, #1022.5 (with a small stream), #1022.5 (with a small stream), #1025.5-1026.5 (at Ada Brook/Blind Lake Creek), #1027-1037, #1041 (at Spring Brook), #1043, #1046-1048 (at Moose River), #1049-1051.5, proposed access roads in an extensive wetland area at #1054.5-1077, #1096 (at the Mississippi River), an extensive wetland area #1078-1129, and another extensive wetland area at #1110.5-1115.

Due to wetland diversity, size and/or riparian location/hydrologic connection to waterways, the following proposed wetland crossings are considered particularly damaging, impacting and impairing to aquatic resources:

Marker #845.5;
Markers #854.0-854.5;
Markers 850.6-851.0;
Markers #856.1-856.5;
Markers 875.9-876.9;
Markers #893.3-985.5;
Marker #905.5;
Marker #906.0-906.7;
Marker #907.5;
Markers #928.0-928.7;
Markers #945.5-946.5;
Markers #961-962;
Marker #963.5 at Hay Creek;
Marker #966.5 adjacent to Long Lake;
Markers #1000.5-1001.5 at Big Swamp Creek;

[19] It is noted that wetland delineation reports though alluded to by Enbridge's Line 3 replacement project application documents, based on information and belief were not publicly available. The disclosure of wetland delineation reports are required to verify wetland boundaries and types as characterized and presented by the Applicant.

[20] "Palustrine" wetlands are inland wetlands that lack flowing water.

Markers #1012.5-1060;
Markers #1027-1037 within a critical pothole and headwater area;
Markers 1034.2-1035.9;
Marker #1043 within a critical pothole headwater area;
Markers #1051.2-1051.5;
Proposed access roads in an extensive wetland area/Mississippi River at #1055.4-1069.6 ;
Markers #1074.6-1092.3 within Atkins and Carlton Counties;
Markers #1110.2-1113.7 within extensive wetland areas;
Markers #1114.6-1115.3;
Markers #1116.1-1118.5; and
Marker #1123.5.

It is highly recommended that pipeline route planning be improved to maximally avoid impact to the above wetland complexes.[21] *Others have also has noted that the proposed Line 3 pipeline route would cross or pass within 1,000 feet from four (4) ecologically sensitive, unique and high quality calcareous fen wetlands west of Clearbrook within post-glacial beach ridges formed by glacial Lake Agassiz.*[22] *We concur that project scoping studies and impact assessment documents do not adequately identify, analyze or assess potential or known impacts to these important wetland resources.*

Further, significant wetland impact is proposed through pipeline access road construction at Enbridge *Detailed Route Maps* pp. 367-369 (Atkin County), pp. 370-376 (Atkin County), pp. 380-393 (Atkin County), pp. 422-429 (Atkin County), pp. 437-442 (Atkin County), pp. 449-457 (Atkin County), pp. 470-472 (St. Louis County), pp. 478-480 (Atkin County), and pp. 488-494 (Atkins & St. Louis Counties).

It is strongly recommended that Enbridge further assess proposed pipeline access road crossings at these wetlands, maximally avoid these wetland areas, and fully minimize wetland impacts when unavoidable.

D. Proposed Enbridge Line 3 Waterway Crossings

Twelve (12) significant waterway crossings are proposed at project mile markers #863 (at the Red Lake River), #875.4 (at the Clearwater River), #941 (at a headwater of the Mississippi River), #963.7 at Hay Creek, #974.2 at the Straight River, #976.6 at the Shell River, #981.4 at the Shell River, #983.7 at the Shell River, #985.4 (at the Oxbox Pond/Shell River), #991.2 at the Shell River, #993.3 at the Crow Wind River, #1017.3 at the Pine River, and #1047.9 at the Moose River and its tributaries. Of these twelve (12) proposed river crossings, Enbridge proposes horizontal directional drilling (HDD) beneath stream/river beds at 9 of 12 or 75% of these locations.

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[21] Examples of appropriate, exemplary wetland avoidance and/or impact minimization are evidenced at pipeline routing plans at Marker #s 804; 829; 832.4-832.5, 839.5-840.4, 846.8, 852.0, 855.7-856.0, 858.1-858.5, 870.7-871.2, 877.1-877.5, 892.6-893.0, 971.9-972.0, 978.5-978.9, 1004.7-1004.8, 1006.2-1006.3, 1009.5-1010.0, 1021.5-1022, 1039.8-1040.7, 1078.0-1078.4, 1096.5-1097.0, and at pipeline access road maps p. 466.

[22] Review of Line 3 Draft Environmental Impact Statement, R. Merritt, P.G., Merritt Hydrologic and Environmental Consulting, LLC, undated, p. 14.

Importantly, dry crossing pipeline installation is proposed at marker #976.6 at the Shell River, #981.4 at the Shell River, and #1017.5 at the Pine River. Also, wet open cut pipeline installation is proposed at #1047.9 at the Moose River and its tributaries.

It is noted that the proposed pipeline crossings at Marker #864.3 at the Red Lake River and #991.2 at the Shell River are poorly planned and if built should be modified to cross at a straight river segment, with a minimum crossing distance, and perpendicular to water flow. It is highly recommended that the HDD method be utilized at each of the above significant river crossings identified in this report to minimize the potential for unacceptable water quality and aquatic resources impact from pipeline stream/river crossings at these locations.

E. Forested Wetland Conversion

The proposed Enbridge pipeline would directly impact 1,046.5 acres of wetlands, 10.8 acres of wetlands are proposed to be impacted for the construction of above-ground pump stations and valve sites, and 82.0 acres from the construction of access roads. Of these proposed wetland impacts, 380.35 acres, or thirty-three percent (33%), are reportedly planned within forested wetlands.[23] The cutting of forested wetlands for pipeline and access road construction have been empirically documented to result in the permanent conversion of forested wetland types through the conversion to emergent and/or shrub-scrub wetland types.[24] Such forested wetland loss results in the loss of wetland functions including but not limited to: a) a decrease in above ground biomass; b) the loss of forest interior habitat; c) a decrease in structural diversity; d) the loss if visual and aural screening from human activity; e) a decrease in local climate amelioration; f) the loss of evergreen winter cover for wildlife; g) the loss of habitat for shade-tolerant or shade-loving plant species; h) the loss of mast production (e.g., acorns, etc.) for wildlife food; i) and increase in and replacement of native plant species with invasive and exotic plant species, etc. Deer and rabbit browse also inhibit forested wetland regeneration, and the regeneration of impacted forested wetlands takes decades - when successful.

It is highly recommended that the cutting or disturbance of forested wetlands be maximally avoided in this proposed pipeline project. Finally, it is highly recommended that site by site HDD alternative analyses be adequately performed prior to the permitting of proposed crossings of all waterways and important wetlands areas.

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[23] *U.S. Army Corps of Engineers - St. Paul District Supplementary Information for Application*, Enbridge Energy, Limited Partnership - Line 3 Replacement, September 2018, p. 30-34.

[24] *The Effects of Converting Forest or Scrub Wetlands into Herbaceous Wetlands in Pennsylvania*, Schmid & Company, Inc. Consulting Ecologists, Media, PA, June 2014.

F. Pipeline Access Roads

Enbridge has not fully assessed the number and location of pipeline access roads. Specifically, Enbridge states,

> "If public or privately-owned roads are not available, Enbridge may need to construct new roads. Prior to the use of private access roads, modifications to existing non-private roads, and construction of new access roads, Enbridge will obtain landowner permission, conduct environmental surveys and obtain applicable environmental permits and clearances."[25]

It is imperative that Enbridge fully assess the impacts of and disclose all proposed access roads for a proposed Line 3 replacement project so as not to "segment" the regulatory/permit review process, and to fully inform the public prior to final agency decision-making.

G. Minnesota Designated Trout Streams

Proposed Line 3 replacement route will reportedly cross four (4) designated trout streams.[26] A review of Minnesota Department of Natural Resources (MDNR) designated trout streams indicates that proposed pipeline crossings state designated trout streams at the Moosehorn River, Big Otter Creek, Little Otter Creek, and Silver Creek in Carlton County, MN.[27] High quality, cold and fast flowing trout streams, though not State-designated, undoubtedly also exist but are listed in Minnesota Lakes and Mississippi Headwater ecoregions proposed for Line 3 replacement. Importantly, the release of sediments and/or petroleum can be and would likely be catastrophic to naturally reproducing trout populations and the high quality waters they depend upon for their aquatic habitat.

H. Threatened and Endangered (T&E) Species

Enbridge has disclosed potential impacts to ten (10) federally-threatened and endangered species and critical habitat for four (4) species listed in Minnesota. These T& E species could be directly or indirectly impacted by wetland filling, habitat fragmentation, changes in plant communities and/or hydrology from the proposed project. Species evaluated by include the northern long-eared bat (*Myotis septentrionals*, a federally-threatened mammal); Canada lynx (*Lynx canadensis*, a federally-threatened mammal); gray wolf (*Canis lupus*, a federally-threatened mammal); whopping crane (*Grus americana*, a federally-endangered bird); rufa red knot (*Calidris cantus rufa*, a federally-threatened plant); piping plover-Great Lakes district species (*Charadrius melodus*, a federally-endangered bird); rusty patched bumble bee (*Bombus affinis*, a federally-endangered insect); Dakota

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[25] *U.S. Army Corps of Engineers - St. Paul District Supplementary Information for Application*, Enbridge Energy, Limited Partnership - Line 3 Replacement, September 2018, p. 9.

[26] Review of Line 3 Draft Environmental Impact Statement, R. Merritt, P.G., Merritt Hydrologic and Environmental Consulting, LLC, undated, p. 13.

[27] Minnesota Department of Natural Resources website, https://www.dnr.state.mn.us/fishing/trout_streams/northeast.html.

skipper (*Hesperia dacotae*, a federally-threatened plant); and Western prairie fringed orchid (Platanthera praeclara, a federally-threatened plant. Enbridge has also assessed federally-listed critical habitat for Poweshiek skipperling (*Oarisma poweshiek*); gray wolf (*Canis lupus); Dakota skipper (Hesperia dacotae);* and the piping plover - Great Lakes distinct species (*Charadrius melodies).*[28]

Specifically, the gray wolf (Great Lakes distinct population) relies upon habitats in the project region which include hardwood forests, mixed forests, and grasslands. The gray wolf excavates dens or uses the dens of other animals, and breeds February to late June. The Northern long-eared bat relies upon summer habitat in the project region, roosting underneath tree bark, in tree cavities, or in crevices of both live and dead trees. The Northern long-eared bat breeds in fall near their hibernacula (i.e., in August and September) and give birth in summer (i.e., May to July). The Northern-long eared bat spends winters in caves and mines (October to April). The Dakota skipper prefers native prairies (lowland and upland) with a high diversity of wildflowers and grasses. The Dakota skipper lays is eggs in June and July, and hatches in ten (10) days. Dakota skipper larvae are dormant in fall, and pupation usually occurs in the month of June. The Poweshiek skipperling prefers native prairies and fen wetlands containing a high diversity of wildflowers and grasses. It's eggs are laid mid-June to mid-July, and they hatch in nine (9) days. The rusty patched bumble bee relies upon grasslands and tall grass prairies with areas that provide flowers, nesting sites such as abandoned rodent cavities or grass clumps, and over-wintering sites in undisturbed soil for hibernating queens. The rusty patched bumble bee's eggs are laid in spring. The Western prairie fringed orchid occurs in mesic-wet tall grass native prairie, herbaceous wetlands, and dune complexes. The plant emerges in May, and flowers in early to mid-July.

Importantly, Enbridge has primarily relied upon internet searches and the application of models and algorithms to assess the potential impact to these state and/or federally-protected species. Moreover, Enbridge states that they "will submit an Applicant-Prepared Biological Assessment to the U.S. ACE to support its (Endangered Species Act) Section 7 consultation with the U.S. Fish & Wildlife Services (U.S. FWS) in fall 2018."[29] *Based on publicly available information and belief, such threatened and endangered species in-field inventories and biological assessments have generally not been performed and/or not disclosed to the U.S. ACE and so unavailable for public review and comment.*

[28] *See U.S. Army Corps of Engineers - St. Paul District Supplementary Information for Application*, Enbridge Energy, Limited Partnership - Line 3 Replacement, September 2018, Table 12.1-1, pp. 39-40.

[29] *Ibid.*, p. 39.

To evaluate potential T&E species impacts, Enbridge performed a desktop assessment relying upon querying five (5) publicly-available databases of protected species past occurrence within or near the project area and the likelihood for species "takes" and/or impact to critical T&E species habitat.[30] These databases included the U.S. FWS' Information for the Planning and Consultation (IPaC) system; Minnesota Natural Heritage Information System (NHIS) elemental occurrence locations and species-specific survey data; the Wildlife Action Network (WAN); Minnesota Biological Survey Sites of Biodiversity Significance (MBS), and Minnesota Scientific & Natural Areas databases. These databases were then evaluated for the likelihood of T&E species occurrence using the U.S.G.S. Gap Analysis Program (GAP) - a computer model. *Importantly, the project Final Environmental Impact Statement concludes that 13 of 21 of the protected T&E species assessed occur within the Line 3 pipeline region.*[31] *However based on information and belief, only limited in-field T&E species surveys have been completed to date by agents for Enbridge.* For example, agents for Enbridge in 2014 found that thirty-three (33) waterbody crossings have potentially suitable habitat for protected mussels, and then they recommended subsequent in-field surveys. Enbridge reportedly completed mussel field surveys at sixteen (16) sites along the proposed replacement Line 3 route.[32]

According to the federal ESA, it is illegal to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct" with regard to an endangered or threatened species.[33] In addition, the body parts and products of endangered or threatened species cannot be imported, exported, or sold. Under Section 7 of the ESA, the federal lead agency must consult with the U.S. FWS when any action may affect a federally listed species. If the agencies determine that the action may affect a federally listed species, a Biological Assessment would be prepared to assist the agencies in making a formal determination on whether the action is likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of their critical habitat. U.S. ACE is currently preparing a Biological Assessment for the Line 3 Project in response to Enbridge's application for a CWA 404 Individual Permit (i.e., the federal action). Thus,

[30] The method used to evaluate direct and indirect impacts from pipeline construction on federally-listed species, the region of interest (ROI) was the area within 1 mile from the centerlines of the pipeline routes. For the state-listed species the ROI was the area within 0.5 mile from the pipeline centerlines. Impacts were evaluated by considering the area directly and indirectly affected by the Applicant's preferred route and the route alternatives between Clearbrook and Carlton, Minnesota. Direct impacts for Enbridge's preferred route was evaluated based on construction footprints consisting of the construction work area, ATWS, access roads, pipe yards, pipeline permanent right-of-way, valve pads and driveways, and pump stations within Minnesota. Animals were considered affected when they occurred within 0.5 mile of the route centerlines; plants were considered affected when they occurred within construction work areas and permanent rights-of-way.

[31] Line 3 Project Final Environmental Impact Statement (FEIS), Chapter 5, Introduction Existing Conditions, Impacts, and Mitigation – Certificate of Need & Natural Environment Existing Conditions, Impacts, and Mitigation – Certificate of Need, pp. 5-358.

[32] *Ibid.*, p. 5-320.

[33] *Ibid.*, pp. 5-310 through 5-426.

the U.S. FWS' formal determination on whether the project would jeopardize the continued existence of any federally-listed species or would result in destruction or adverse impact to critical habitat has yet to be made.

If any federally-listed species is likely to be adversely affected, but the project does not jeopardize the existence of a species or adversely modify critical habitat, U.S. FWS will develop a Biological Opinion identifying the proposed project activities, action area, anticipated impacts, and Reasonable and Prudent Measures. Reasonable and Prudent Measures are the actions U.S. FWS believes are necessary to minimize the proposed project's effect on federally listed species. The Applicant would comply with RPMs identified by U.S. FWS to protect federally-listed species.

We find that the Applicant has failed to perform an adequate in-field inventory or assessment of the presence of and potential impact to threatened and endangered (T&E) species within the project footprint. It is recommended that additional valid and reliable in-field surveys of T&E species be completed by the Applicant during the spring, summer and fall of 2019 to more fully assess and characterize the potential impact on these protected species. The results of this survey should be disclosed to federal and state regulatory agencies prior to final agency decision-making regarding project permitting.

IV. Recommendations

A. Proposed Pipeline Installation Methods

An independent review of Enbridge's proposed pipeline maps documents a total of two hundred and eighteen (218) river/stream crossings. Of the proposed river/stream crossings, #151 or 69.2% are proposed as using the dry crossing installation method; #25 or 11.5% are proposed using the wet open cut method, #19 or 8.7% are proposed using the horizontal bore method; #3 or 1.4% are proposed using the well push pull method; and #20 or 9.2% are proposed using the horizontal directional drilling method (HDD). Enbridge reports that their method of pipeline installation for specific proposed river/stream crossings are based upon an assessment of the planned construction season, soil saturation level, and the stability of soils at the time of construction.[34] *We highly recommend that Enbridge adequately assess and further justify the use of any pipeline installation method other than HDD for all water and wetland crossings.*

These pipeline river/stream crossing methods can be summarized as follows:[35]

- **Wet trench/open cut** - trenching through a wetland/waterway/waterbody while water continues to flow in the work area. This method is considered suitable only for small, non-fishery streams or

[34] *Summary of Construction Methods and Procedures for Wetland & Waterbody Crossings,* Enbridge Energy, Limited Partnership, Line 3 Replacement, September 2018, page 1.

[35] Adapted from Enbridge Energy LLP, Line 3 Replacement Project, Summary of Construction Methods and Procedures for Wetland and Waterbody Crossings, 2018, pp. 1-8.

waterbodies with beaver dams. This method generally requires the use of concrete weights or coatings to counter pipeline buoyancy in saturated soils (due to density differences) and to attempt to secure the pipe will not float and/or rupture. *We do not consider this method to be adequately environmentally protective as it interrupts stream flow and results in erosion/sedimentation from trench spoil placement, water quality degradation and aquatic habitat impact.*

- **Dry crossing** - a stream/river is dammed and up-stream flow is diverted around a work area and discharged downstream during pipeline crossing installation. This method is generally suitable for low flow streams with definite banks and fish passage is not a concern and is preferred in non-permeable or clay-rich soil areas and for crossing meandering streams. *We do not consider this method to be adequately protective of water quality or aquatic habitat as it releases sediment, inhibits fish and other animal passage, results in fish and other aquatic organism fatalities, and is susceptible to mechanical and pump failures. Importantly, stream bed scour must also be adequately prevented at diverted stream flow discharge points during the period of stream diversion. We also find that adequate detail is not provided in this proposal application to assess the adequacy of proposed discharge point energy dissipation method(s).*

- **Wet push pull method** - a trench is excavated from timber mats or on tracked pontoons advancing along a pipeline route, pre-assembled pipe is floated and sunk into the trench and then backfilled. Generally suitable for pipeline installation is within saturated wetland soils with low to moderate-bearing strength. *We do not consider this method to be adequately protective of water quality or aquatic habitat as it can result in dredge spoils spreading and sediment discharge into wetlands/ waterways, and spoil/pipeline settling.*

- **Conventional ager bore method** - entails drilling bore holes from north sides toward a common center with or without a borehole casing. Best suited for pipe crossings of narrow wetlands or ditches adjacent to roads or railroads. *This method is considered unsuitable for high water table areas (i.e., wetlands), loose sands/gravels, or adjacent to steep slopes.*

- **Horizontal directional drilling (HDD)** - This method avoids trench excavation across the bottom of a waterway or wetland, and significantly reduces soil and waterway disturbance and the need extensive tree cutting typical of open trench wet push pull methods. Although stressed by Enbridge, in our opinion the use of the HDD method would not be significantly inhibited in this project by the presence of unsuitable substrate, artesian groundwater flow, steep slopes, or steep banks along water ways. [36] The HDD method is suitable and recommended for all proposed high quality/high diversity wetland crossings, shrub-scrub and forested wetland crossings, and all major river/stream crossings. This methods involves drilling a small diameter pilot bore hole beneath a wetland/waterway along a proscribed arch; cutting/reaming the pilot hole with circulated drilling clay-based drilling mud to accommodate the planned pipe diameter; pipeline welding, X-ray analysis, coating and hydrostatic testing; and pulling the welded pipeline through the bore hole from an entry point to an exit point. *We*

[36] *Ibid.*, p. 5.

highly recommend the use of this method as it maximally avoids wetland/waterway/waterbody disturbance/impact and limited vegetation disturbance within maintenance easement corridor. As public and private groundwater wells, water in-takes and springs are interpreted to be largely absent from proposed Line 3 waterway crossings, HDD is the preferred and recommended pipeline crossing method for this project, if permitted.

B. Best Management Practices (BMPs)

BMPs require the preparation and submittal of wetland delineation reports for all wetlands proposed for impact, including in-field alpha-numerical flagging.[37] *Based on publicly-available information and belief, such wetland delineation reports have not been submitted to regulatory agencies for this project.*

Empirical study of wetland crossings for construction projects in Minnesota document the impact to wetlands, including soil subsidence and soil rutting and ponding, from the use of heavy equipment. BMPs such as the use of wood mats with geotextile fabric, expanded metal and deck-spans with safety grating, and PVC pipe mats significantly reduced wetland impacts.[38] Enbridge proposes pipeline installation year-round through wetlands with moderate- to high-bearing strength soils using timber mats or the equivalent.[39]

1) Wetland Restoration

Recommended additional BMPs include requiring the de-compacting of soils in all construction areas, replacing hydric/topsoils, removal of large rocks and boulders, repairs to any agricultural drain tiles systems, application of soil amendments (if any), fencing and other structural repairs, and the restoration and/or replacement of impacted plants with native wetland vegetation.

2) Wetland Mitigation

Enbridge proposes compensatory wetland impact mitigation for this Line 3 project at 255.79 acres, while impacting a total of 1,139.3 acres or an overall ratio of 0.23:1. Specifically, Enbridge proposes mitigation ratios for wetland types as forested wetlands (PFO) at 0.5:1 acres; shrub-scrub wetland (PSS) at 0.5:1 acres; emergent wetlands (PEM) at 0.03:1 acres; and unconsolidated bottom (PUB) at 0.3:1 cares.

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[37] *Wetland & Waterbody Construction & Mitigation Procedures*, Federal Energy Regulatory Commission, Office of Energy Projects, Washington, DC, May 2013, www.ferc.gov, p. 4, and Environmental Protection Plan, Enbridge Energy LLP, Line 3 Replacement, September 2018.

[38] See *FOCUS: Options for Temporary Wetland and Stream Crossings* (GTR-202) Journal of Forestry, USDA Forest Service, Madison, WI, August 1999; Mason, L.E. and P.H. Greenfield, *Portable Crossings for Weak Soil Areas and Streams*, Transportation Research Record 1504, Washington, DC: National Research Council, pp. 118-124, 1995; and Hislop, L.E., Portable Surfaces for Crossing Unstable Aggregate and Native Soil Roadbeds, Masters Thesis, Oregons State University, 1996.

[39] Enbridge Energy LLP, Line 3 Replacement Project, Summary of Construction Methods and Procedures for Wetland and Waterbody Crossings, 2018, pp. 1-3.

These proposed wetland mitigation ratios are unacceptable resulting in a net loss of 883.51 acres of wetland from the proposed project. Federal ratios for wetland compensatory mitigation are intended to ensure "no net loss" of wetland acreage, and are site-specific determinations to ensure that proposed wetland impact compensation is proportionate to proposed aquatic resource losses or degradation. U.S. ACE compensatory mitigation ratio guidelines are as follows:

Impacted Wetland or Other Waters of the U.S.	Restoration and/or Enhancement	Preservation
Common, pristine, non-fragmented	1:1	2:1
Plentiful within its watershed, least biodiversity, relatively low biodiversity and productivity	1:1	1.5:1
Rare, high quality, very sensitive, special plant populations, and/or T&E species habitat	2:1	3:1

Source: https://www.poa.usace.army.mil/Portals/34/docs/regulatory/HOWWetlandCategoriesRatios.pdf.

Consistent with other Great Lakes states regulations,[40] the following wetland compensation mitigation ratios are highly recommended be required for this project:

Cowards Wetland Classification [41]
PFO - 2:1 replacement ratio;
PSS - 1.5:1 replacement ratio;
PEM - 1.5:1 replacement ratio;
PUB - 1.5:1 replacement ratio; and

2:1 replacement ratio for wetlands that border inland lakes and waterways;
5:1 replacement for wetlands that are rare or imperiled on a statewide basis;
5:1 replacement ratio for wetland impacts of 5 acres or more within a contiguous wetland;
10:1 mitigation ratio for mitigation in the form of the preservation of an existing wetland
The U.S. ACE may increase the ratio if the replacement wetland is of a different ecological type than the impacted wetland.

If the U.S. ACE determines that an adjustment would be beneficial to the wetland resources, they may increase or decrease the number of acres of wetland mitigation by 20 percent; and
The U.S. ACE should double the required ratios if an after-the-fact permit is issued.

[40] See Michigan administrative rules - Wetland Mitigation Banking, R 281.951 - 281.961 pursuant to Pat 303: Wetland Protection Act, P.A. 451 of 1994, as amended.

[41] Cowardin, L.M., et al., (1979) "Classification of Wetlands and Deepwater Habitat of the United States," U.S. Department of Fish and Wildlife Service, (1995-06-01).

Enbridge does not specify proposed compensatory wetland mitigation ratios for wetlands it plans to permanently fill for proposed pipeline access roads.[42] *It is highly recommended that such compensation ratios be disclosed as part of this permit review process, and be subject to public review and comment prior to any final U.S. ACE decision in this matter.*

Finally and based on information and belief, Enbridge has not fully assessed the extent and location of wetland impacts from this project. Specifically, Enbridge states,

> "Enbridge conducted wetland delineation surveys along the Designated Route between 2013 and 2018 to identify the wetlands that will be affected during Project construction…Enbridge will conduct remaining wetland delineations along the Designated Route in 2018, or prior to construction."[43]

It is imperative that Enbridge fully disclose all wetland impacts for a proposed Line 3 replacement project so as not to "segment" the regulatory/permit review process, and to fully inform the public prior to final agency decision-making.

Exemplary of the practical and scientific difficulty in creating "new" wetlands when wetland loss through development and construction is permitted, the U.S. EPA audited the State of Michigan's wetland mitigation program finding that the program is "not successful in producing adequate replacement wetlands…" with a measured success rate of thirteen (13%) percent.[44]

C. Waterway Crossing BMPs

Empirical studies in Pennsylvania and Michigan document the impact to surface water quality and aquatic habitat from sedimentation during access road stream crossing construction.[45] Specifically, increased levels of fine sediment loading, reduced stream basal area, nutrient contamination, soil and bank disturbance, and increased herbaceous vegetation succession/conversion were documented as being statistically significant in 814 stream crossings studied. Impacts were significant up to 331 feet downstream of crossings, and especially

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[42] *U.S. Army Corps of Engineers - St. Paul District Supplementary Information for Application*, Enbridge Energy, Limited Partnership - Line 3 Replacement, September 2018., pp 34-35.

[43] *U.S. Army Corps of Engineers - St. Paul District Supplementary Information for Application*, Enbridge Energy, Limited Partnership - Line 3 Replacement, September 2018, p. 29.

[44] Michigan Department of Environmental Quality, Michigan Wetland Mitigation and Permit Compliance Study - Final Report (Feb. 2001), available at http://www.deq.state.mi.us/documents/deq-lwm-wetlands-MITIGATIONREPORTFINAL09-14-01.pdf; and Environmental Law Center, Environmental Law Institute, State Wetland Program Evaluation: Phase 1, January 2005, pp. 67-79.

[45] Hassler, C.C., *Modular Timber Bridge for Temporary Stream Crossings,* Technical Release 90-R-61, Washington DC: American Pulpwood Associations, 1990; Mason, L.E. and P.H. Greenfield, *Portable Crossings for Weak Soil Areas and Streams*, Transportation Research Record 1504, Washington, DC: National Research Council, pp. 118-124, 1995; and White Water Associates, Inc., *Total Ecosystem Management Strategies (TEMS),* 1995 Annual Report, Amasa, Michigan, 1996.

acute in small, shallow and relatively low flow headwater streams.[46]

We find that Enbridge has not adequately assessed likely impacts from the proposed use of wet cut and push pull pipeline installation methods at specified crossing locations, and the potential impacts especially in small tributaries/headwaters and during low flow and drought periods.

To be sufficiently protective of waterway and wetland crossings, it is highly recommended that regulators require: 1) geotechnical analyses at all proposed wetland crossings to assess the ability of hydric soils to support proposed pipeline for the entire period of its use (interpreted to be 50-60 years based on Enbridge's record); 2) the required use of permanent bank to bank free span bridges/structures (i.e, without in-stream supports of any kind) across all river/stream crossings to minimize water quality and aquatic resource impact during pipeline installation; and 3) the maximal requirement of both technologies be fully utilized to enable pipeline integrity inspection and maintenance over the lifetime of the proposed pipeline.

V. Enbridge's Compliance Record

Between 1999 and 2008 Enbridge reported more than 600 releases from its pipeline network, resulting in spilling of 5,544,000 gallons (132,000 barrels) of hydrocarbons into agricultural lands, wetlands and waterways in the U.S. and Canada.[47] The U.S. Pipeline and Hazardous Materials Safety Administration cited Enbridge thirty-one (31) times, including two (2) corrective action orders from 2002 to 2010 for failure to properly inspect equipment or train its employees.[48]

Data from the U. S. Pipeline and Hazardous Material Safety Administration (U.S. PHMSA) shows that the U S portion of the pipeline network owned by Enbridge and its joint ventures and subsidiaries suffered 307 hazardous liquids incidents from 2002 to August 2018 – around one spill every twenty (20) days on average.[49] There is no comparable national data set in Canada or a consistent format for data collection or release.

Importantly, Enbridge is responsible for the largest terrestrial spill of crude oil in U.S. history. At 5:58 p.m. on July 25, 2010 Enbridge's Line 6B ruptured 0.6 miles downstream of the City of Marshall, Michigan along Talmadge Creek in Kalamazoo County, a tributary to the Kalamazoo River. This pipeline rupture released more than 1 million gallons of tar sands bitumen to the environment, and was exacerbated by Enbridge's failure to halt the release for 18 hours after its occurred, even increasing Line 3 pressure after the release - assessing

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[46] See FOCUS: Options for Temporary Wetland and Stream Crossings (GTR-202) Journal of Forestry, USDA Forest Service, Madison, WI, August 1999.

[47] News: The Enbridge Dirty Dozen, by A. Nikiforuk, TheTycee.ca, July 31, 2010.

[48] *Ibid.*

[49] See also Donaghy, T & K Stewart 2017 Four Proposed Tar Sands Oil Pipelines Pose A Threat To Water Resources. Greenpeace, August www.greenpeace org/usa/wp-content/ uploads/2017/08/TarSandsPipelineSpillReport pdf. This report updates Enbridge spill information previously shared in the 2017 report. The latest PHMSA data also includes a total of 15 incidents from TransCanada and 472 from Kinder Morgan, from 2002 to present.

wrongly that a "bubble" had developed within the ruptured pipeline. This malfeasance along resulted in the release of approximately 1 million gallons of tar sands crude oil in Michigan waterways and wetlands. This oil spill results in coating of wildlife with oil, contaminating the drinking water source of 100 homeowners, and the closure of thirty-five (35) miles of the Kalamazoo River to the public[50], and contaminated up to twenty-five (25) river miles. Enbridge managing the pipeline flow in Edmonton, Canada reported discounted residents reports to 911 and emergency responders reportedly did not find the release. The release was not slowed/halted for 18 hours, i.e., at 11:17 a.m. on July 26, 2010 after the pipeline rupture upon the report of the release by Michigan utility workers. The U.S. National Transit Safety Board (NTSB) investigated and reported that Line 6B rupture was due to pipeline corrosion fatigue, and that the 40-year old pipeline had 15,000 known defects since 2005. Environmental cleanup of the Kalamazoo River spill reportedly has cost upwards of $1.2 billion.

[50] Kalamazoo River was closed from Saylor's Landing Public Access to Ceresco Public Access from from July 2010 to June 2012.

Other Enbridge spill and other notable events include but are not limited to:[51]

- *January 2001* - Enbridge's Energy Transportation North Pipeline in Canada leaked 23,900 barrels of crude oil into wetlands near Hardisty, Alberta. An aging pipeline was identified by regulators as a "high priority location" four (4) months prior to the release.

- *July 2002* - A 34-inch diameter Enbridge pipeline ruptured in wetlands west of Cohasset, Minnesota. To prevent 252,000 gallons (6,000 barrels) of crude oil from reaching the Mississippi River, Enbridge set the oil on fire. The plume of smoke reportedly extended one (1) mile high. The U.S. NTSB found that the pipeline rupture was caused by "inadequate loading of the pipe for (crude oil) transportation."

- *January 2003* - A pipeline failure resulted in a spill of 189,000 gallons (4,500 barrels) of oil at Enbridge's terminal near Superior, Wisconsin. Approximately 21,000 gallons (500 barrels) of oil reportedly flowed into the Nemadji River, a tributary of Lake Superior.

- *April 2003* - A gas explosion leveled an Etobicoke strip mall near Toronto and killed seven (7) people. This Enbridge mishap represents the the largest number of human fatalities ever recorded in a single pipeline incident in Canadian history. Ontario's Technical Standards and Safety Authority charged Enbridge with failure to provide accurate information, and failure to ensure their contractors compliance with the law.

- *February 2004* - Maintenance workers found a slow leak of crude oil from the Line 2 pipeline near Grand Rapids, Minnesota resulting in the release of 42,000 gallons (1,003 barrels) of crude oil and groundwater contamination.

- *April/May 2004* - U.S. pipeline regulators fined Enbridge for improperly inspecting oil and gas pipelines in Michigan, Indiana and Illinois, Minnesota and Wisconsin.

- *January 2007* - 63,000 gallons (1,500 barrels) of crude oil spilled from Line 14 near Atwood, Wisconsin due to pipe seam failures dating from the line's 1998 construction, a problem that had previous been identified by inspectors during the construction phase.

- *January 2007* - A pipeline near Stanley, North Dakota ruptured releasing 9,030 gallons (215 barrels) of oil. Regulators cited and fined Enbridge for exceeding the pipeline's pressure limits/standards.

- *February 2007*- Enbridge spilled approximately 176,000 gallons (4,190 barrels) of oil in separate incidents in Clark and Rusk County, Wisconsin. As in Enbridge's Talmadge Creek/Kalamazoo River spill, one of the releases couldn't be halted until an operator in Canada shut down the pipeline. Workers reported damaged the same pipeline in the second incident, filling 20 feet deep hole with oil and contaminating groundwater. The company was reportedly fined $100,000 for failure to comply with safety standards.

[51] Adapted from News: The Enbridge Dirty Dozen, by A. Nikiforuk, TheTycee.ca, July 31, 2010; and Dangerous Pipelines: Enbridge's History of Spills Threatens Minnesota Waters, Greenpeace Reports, November 2018.

- *November 2007* - Line 3 exploded killing two (2) workers near Clearbrook, Minnesota. Line 3 had reportedly leaked two (2) weeks prior to and was being repaired at the time of this explosion. The explosion resulted in the release of 13,650 gallons (325 barrels) of crude oil and a hike in crude oil prices nationally, and shut-down four (4) other pipelines delivering 1.5 million barrels of crude oil/day. The U.S. PHMSA reportedly fined Enbridge $2.4 million for exceeding pipeline pressure standards and violating safety procedures.

- *May 2008* - Alberta undertook a "high risk enforcement action" against Enbridge for utilizing "valves, flanges and fittings" on its Midstream pipeline that were unsuitable for this pipeline's maximum operating pressure.

- *January 2009* - Enbridge agreed to pay a fine of $1 million to Wisconsin for more than 500 violations of wetland and waterway regulations during the construction of its $2 billion Southern Access pipeline. This Enbridge pipeline delivers 16,800,000 gallons (400,000 barrels) of tar sands bitumen from Alberta to

Chicago for export. Wisconsin's attorney general was quoted as saying "the incidents of violation were numerous and widespread and resulted in impacts to the streams and wetlands throughout the various watersheds." Enbridge reportedly attributed these problems on "bad weather."

- *January 2009* - A valve ruptured on a pipe at the Enbridge Cheecham Terminal tank farm, releasing 168,000 gallons (4,000 barrels) of oil near Anzac, Alberta. The leak reportedly went undetected for three (3) hours.

- *January 2010* - A 54 year-old Enbridge pipeline delivering crude oil from western Canada to Cushing, Oklahoma and Chicago leaked 3,000 barrels (126,000 gallons) near Neche, North Dakota. The U.S. PHMSA reported had warned Enbridge that older pipelines were susceptible to failure. U.S. PHMSA has reportedly cited Enbridge 58 times for poor performance.

- *January 2010* - 3,748 barrels (157,000 gallons) spilled near Neche, North Dakota.

- *September 2010* - A pipeline near Romeoville, Illinois, a suburb of Chicago, leaked for four (4) days releasing 7,538 barrels (317,000 gallons). According to the accident report, the spilled oil "migrated into nearby storm water and septic sewer systems, and reached both a local stormwater retention pond and water treatment plant."

- *May 2012* - Two (2) people were killed and three (3) people were injured in a two vehicle collision with an Enbridge pipeline resulted in the release of 63,000 gallons (1,500 barrel) oil and a fire in New Lenox, Illinois.

- *July 2012* - 73,000 gallons (1,729 barrels) of crude oil spilled from Line 14 near Grand Marsh, Wisconsin. The pipeline reportedly "blew like an oil well" and sprayed oil a distance of 1,000 feet across livestock pasture. The incident was deemed to be due to pipeline seam failures.

- *April 1, 2018* - Enbridge's Line 5 along the bottomlands of the Straits of Mackinaw in Michigan was struck by a tug boat dragging its anchor, and the continued operation of this pipeline is the currently subject of bitter debate and litigation over pipeline removal or spill risk mitigation measures.

Clearly and as evidenced above, the Applicant has a long history of pipeline ruptures, system and operator failures, poor inspection practices and inadequate staff training resulting in environmental contamination, ecological and wildlife impairment, inadequate demonstration of insurance coverage for environmental remediation and ecological restoration form pipeline releases, and the loss of human life. For these and other reasons documented in this report, we strongly urge that the U.S. ACE deny this Line 3 replacement application as proposed. At the very least, the U.S. ACE must evaluate the potential for crude oil spills to impact various water resources along the proposed pipeline route.

VI. Pipeline Alternative Analyses

The State of Minnesota Commerce Department's DEIS alternatives analysis included the: 1) continued use, repair and maintenance of the existing Line 3; 2) use of other existing pipelines to convey Line 3's product volume; 3) use of the alternative pipeline system route SA-04; 4) crude oil transport by rail; 5) crude oil transport by truck; 6) use of existing Line 3 as supplemented by rail transport; 7) use of existing Line 3 as supplemented by truck transport; and 8) no action alternatives. Enbridge's alternative pipeline route review, including pump stations and mailing value locations, focused on four (4) primary routes referred to as RA-03AM; RA-06; RA-07; and RA-08.[52] *Section 404 of the federal Clean Water Act requires that wetland impact be avoided to the extent practicable, and that the least impacting practicable alternative be implemented for unavoidable wetland impacts.*[53] *Importantly, based on information and belief, the Applicant has not provided sufficient data to compare direct, indirect or cumulative wetland, protected plant and animal species, and aquatic ecosystem impacts from the preferred and other routes and system alternatives. The U.S. ACE should independently complete a detailed EIS study to assess the direct, indirect, and cumulative environmental impacts from the potential and additional practicable project alternatives before making an independent determination as which alternative would result in the least amount of environmental impact to aquatic ecosystems. Based on our review of the FEIS document's alternatives and cumulative environmental impact analyses, Enbridge's application, and other project documents, there are several alternatives to Enbridge's proposed Line 3 project that would have fewer environmental impacts that Enbridge's preferred alternative.*

A. Route Alternatives

Route RA-07 alternative would primarily replace the existing Line 3 within its current trench from Clearbrook Terminal to Carlton, MN. This "in trench replacement" alternative would avoid impacting new areas within a relocated pipeline route, while increasing overall pipeline capacity as sought by Enbridge.[54] The RA-07 alternative would have far less direct and less indirect impact to aquatic ecosystems than Enbridge's preferred alternative as it would not require the creation of a new pipeline right-of-way and new route for any significant portion of the pipeline, thereby eliminating many of the environmental impacts described in this report. This alternative is also preferred by the Minnesota Department of Natural Resources, Minnesota Pollution Control Agency and others as it would provide an opportunity for other new or replaced pipelines within the existing trench for other companies' use. The RA-07 route alternative from Clearbrook to Carlton would cross fourteen

[52] See Line 3 Project Final Environmental Impact Statement, Chapter 4: Alternatives to the Proposed Project, pp. 4-1 through 4-42; and Chapter 7: Route Alternatives, pp. 7-1 through 7-94; and Appendices.

[53] 33 C.F.R. § 320.4(r), and 40 C.F.R. §§ 230.5(c) and 230.10(a).

[54] Line 3 Project Final Environmental Impact Statement, Chapter 4: Alternatives to the Proposed Project, p. 4-25.

(14) trout streams as compared to the Applicant's preferred route which would cross twelve (12) trout streams, and within 0.5 mile of 2,372.5 acres of lakes of biological significance as compared to 452.6 acres along the Applicant's preferred route.[55] However, the existing pipeline right-of-way that RA-07 would follow currently has seven (7) other pipelines in it, which will remain regardless of the U.S. ACE's decision on Line 3. In other words, Enbridge's preferred route would create a new pipeline right-of-way impacting an *additional* 12 trout streams and 2,372.5 acres of lakes of biological significance, whereas RA-07 would not impact any additional areas. This alternative would however remain within the existing right-of-way through the Leech Lake Band of Ojibwe Indians, regarding which the Leech Lake Band is on-record as opposing. RA-07 would also require three (3) new pump stations west of Carlton, upgrades to four (4) pump stations from Clearbrook to Carlton, and according to Enbridge would require the placing of twenty-two (22) new main line valves "near water crossings, significant environmental resources and populated areas."

RA-03AM would place a new Line 3 south of the proposed pipeline route from the Clearbrook Terminal to Carlton just southwest of the Superior Terminal at Duluth. The RA-03AM route alternative from Clearbrook to Carlton would cross sixteen (16) trout streams as compared to the Applicant's preferred route which would cross twelve (12) trout streams, and within 0.5 mile of 264.4 acres of lakes of biological significance as compared to 452.6 acres along the Applicant's preferred route.[56] Importantly, this alternative route would parallel an existing pipeline right-of-way from Clearbrook to Park Raids, thereby focusing pipeline construction and operation impacts in areas already impacted by a crude oil pipeline and avoiding and minimizing new direct and indirect environmental impacts.[57] This route would also have less cumulative environmental impact as it would avoid the Mississippi Headwater and Minnesota Lakes regions, and reroute the pipeline around fens, fish hatcheries, Wildlife Management Areas, and some communities.

Route RA-06 would place a new Line 3 north of the proposed pipeline route between Clearbrook Terminal to Carlton. This route would have significantly less environmental impact than Enbridge's preferred alternative as it would avoid the wetland, waterway and water body rich Mississippi Headwater and Minnesota Lakes regions.[58] The RA-06 route alternative from Clearbrook to Carlton would cross thirteen (13) trout streams as

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[55] Appendix L: Table L-1. Trout Streams Potentially Affected by the Applicant's Preferred Route and Route Alternatives between Clearbrook and Carlton, Minnesota (number), Line 3 Project Final Environmental impact Statement, p. L-7, and Table L-2. Lakes of Biological Significance within 0.5 mile of the Applicant's Preferred Route in Minnesota and Route Alternatives between Clearbrook and Carlton, Minnesota (acres), Line 3 Project Final Environmental impact Statement, p. L-9.

[56] Appendix L: Table L-1. Trout Streams Potentially Affected by the Applicant's Preferred Route and Route Alternatives between Clearbrook and Carlton, Minnesota (number), Line 3 Project Final Environmental impact Statement, p. L-7, and Table L-2. Lakes of Biological Significance within 0.5 mile of the Applicant's Preferred Route in Minnesota and Route Alternatives between Clearbrook and Carlton, Minnesota (acres), Line 3 Project Final Environmental impact Statement, p. L-9.

[57] Line 3 Project Final Environmental Impact Statement, Chapter 4: Alternatives to the Proposed Project, p. 4-20.

[58] *Ibid.*, p. 4-24.

compared to the Applicant's preferred route which would cross twelve (12) trout streams, and within 0.5 mile of 112.9 acres of lakes of biological significance as compared to 452.6 acres along the Applicant's preferred route.[59] This route alternative, however, would transect the Fond du Lac Indian Reservation, Chippewa National Forest, and George Washington State Forest.

Route RA-08 would place a new Line 3 south of U.S. Highway 2 in Beltrami, Cass, Itasca and St. Louis Counties, MN. The RA-08 route alternative from Clearbrook to Carlton would cross eleven (11) trout streams as compared to the Applicant's preferred route which would cross twelve (12) trout streams, and within 0.5 mile of 1,428.5 acres of lakes of biological significance as compared to 452.6 acres along the Applicant's preferred route.[60] Route RA-08 would likely have less overall environmental impact than Enbridge's preferred alternative as it would not require an entirely new pipeline corridor between Clearbrook and Superior, MN. Specifically, the Route RA-08 alternative would place a new pipeline along an existing natural gas pipeline near the RA-07 alternative, and would reduce the length of pipeline crossings through the Chippewa National Forest and the Leech Lake Band of Ojibwe Indian Reservation.[61] This route alternative, however, would cross through the Leech Lake Band of Ojibwe and Fond du Lac Indian Reservations and the Chippewa National Forest. Finally, we find that project proponents have not adequately assessed the likely social and cultural impacts resulting from the RA-08 route alternative.

B. System Alternatives

Based on the FEIS and other project documents, Enbridge has acknowledged the existence of project alternatives that could allow Enbridge to ensure pipeline safety and meet crude oil demand without constructing an entirely new and costly Line 3 pipeline. For example, Enbridge could continue to repair damaged or compromised sections of Line 3, which the company has stated would allow it to safely operate the existing Line 3 at its current operating capacity going forward. In addition, Enbridge has announced several proposed modifications to other pipelines in the Enbridge system (located in the same right-of-way as Line 3) that could allow it achieve significant increases in capacity sufficient to meet increased crude oil demand. Each of these alternatives, or some combination thereof, could allow Enbridge to achieve the goals of the project without engaging in the construction of a major new pipeline through much of the state of Minnesota. As such, these alternatives would appear to result in fewer environmental impacts than Enbridge's preferred route if

[59] Appendix L: Table L-1. Trout Streams Potentially Affected by the Applicant's Preferred Route and Route Alternatives between Clearbrook and Carlton, Minnesota (number), Line 3 Project Final Environmental impact Statement, p. L-7, and Table L-2. Lakes of Biological Significance within 0.5 mile of the Applicant's Preferred Route in Minnesota and Route Alternatives between Clearbrook and Carlton, Minnesota (acres), Line 3 Project Final Environmental impact Statement, p. L-9.

[60] *Ibid.*

[61] *Ibid.*, p. 4-24.

implemented.

In addition, the FEIS evaluated a system alternative that would allow oil shippers to bypass Enbridge's Clearbrook and Superior Terminals altogether; and instead ship oil via a more southerly route directly to downstream oil markets.

1. System Alternative SA-04

System Alternative SA-04 would by-pass Minnesota and Wisconsin refineries and intersect with with Alliance pipeline corridor in northeast North Dakota until crossing into Minnesota near Wheaton in Traverse County. SA-04 would locate sixty-eight percent (68%) of pipeline through North Dakota, Iowa and Illinois, avoiding the Mississippi Headwaters and Minnesota Lakes regions. In Minnesota SA-04 would parallel the Alliance pipeline right-of-way and the Minnesota River to near Mankato, and connect with the regional pipeline system closer to major refineries in central Illinois. The System SA-04 Alternative would operate in and impact sixteen (16) areas of known occurrences of rare and T& E plant species, as opposed to ninety-one (91) protected plant species occurrences within the Applicant's preferred route.[62] SA-04 would however operate in and impact thirty-four (34) areas of known occurrences of rare and T& E animal species, as opposed to fifteen (15) protected animal species occurrences within the Applicant's preferred route.[63]As other environmental impacts of the SA-04 alternative are not detailed in documents reviewed herein, it is not possible to make a meaningful comparison of potential environmental impacts relative to Enbridge's preferred alternative.

C. Summary of Alternatives Analysis

In summary, the following Line 3 alternatives, if implemented, would each result in less environmental impact to aquatic ecosystems than would Enbridge's proposal:

- implementing modifications to the product conveyance within Enbridge's existing pipeline network to achieve capacity goals while building no new pipelines;
- upgrades and repairs to the existing Line 3 pipeline within the existing route;
- replacing the existing Line 3 pipeline within the "same-trench";
- more fully developing and maximally utilizing the RA-03AM route;
- twinning an adequately repaired existing Line 3 with a new pipeline within the same right-of-way;

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[62] Appendix M: Number of Occurrences of Rare Plants for the the Applicant's Preferred Route and System Alternative SA-04.

[63] Appendix M: Number of Occurrences of Rare Animals for the the Applicant's Preferred Route, Existing Line 3 and System Alternative SA-04.

- the adequate exploration of the feasibility and prudence of utilizing pipeline route alternative SA-04, running through North Dakota, Iowa and Illinois - the only route alternative that significantly reduces environmental justice impacts[64] and also avoids northern and central Minnesota and its sensitive Mississippi Headwaters and Minnesota Lakes regions;

- and/or a combination of crude by rail and pipeline transport to best respond to changing markets conditions.[65]

Notably, given the importance of groundwater to supply surface and drinking water resources in the project area(s), the presence of numerous hazardous and toxic substances within crude oil, and the substantial time requirements for and economic costs of groundwater remediation, it is highly recommended that the potential for groundwater impact from an accidental release be more fully assessed and meaningfully considered within the assessment of any project alternative. Lastly, we concur with the MPCA comment that the environmental impacts from pipeline decommissioning/abandonment/removal also be meaningfully assessed and considered with the review of all pipeline project alternatives.[66]

VII. Additional Recommendations

- *Additional analysis is required by the Applicant and its agents to fully evaluate conveyance alternatives and pipeline routes to identify the alternative with the least environmental, cumulative environmental and environmental justice impacts. Specifically, high quality wetland areas, T&E species and habitat, first-order tributaries/headwaters, and culturally important lands and federal trust land should be maximally avoided. Only then, unavoidable impacts to these sensitive environmental and important cultural resources should be maximally mitigated.*

- *Additional analysis is required by the Applicant and its agents to fully and meaningfully assess the greenhouse gas impacts, i.e., to be consistent with Minnesota goals, in route alternatives analyses and implementing enhanced project greenhouse gas emissions (GHG) conditions, if a project alternative is permitted.[67] We strongly recommend the implementation of following GHG conditions, if a project is permitted: a) conserving one and one-half (1.5) acres for every acre of natural habitat impacted; b) planting and maintaining two (2)*

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[64] Seirks, Bill, Minnesota Pollution Control Agency (MPCA) comments on behalf of MPCA to S. Ek, Minnesota Public Utilities Commission (MPUC), dated May 9, 2018, pp. 1-2. See also Seirks, Bill, MPCA to S. Ek, MPUC, dated November 22, 2017, pp. 1-8.

[65] See "Crude by Rail, Option Value, and Pipeline Investment," Thomas R. Covert Ryan Kellogg, Working Paper 23855, National Bureau of Economic Research,1050 Massachusetts Avenue, Cambridge, MA 02138, September 2017, http://www.nber.org/papers/w23855.

[66] Seirks, Bill, Minnesota Pollution Control Agency (MPCA) comment on behalf of MPCA to S. Ek, Minnesota Public Utilities Commission, dated May 9, 2018, p. 3.

[67] *Ibid.*, p. 2. We agree with the MPCA comment that a carbon neutral footprint strategy should be implemented in the permitting any pipeline alternative, but urge that these conditions be enhanced. For example, conditions of approval for the 2nd upgrade of Line 67 included conserving an acre for every acre of natural habitat impacted, planing a tree for every tree removed, and funding the generation of a kilowatt-hour of renewable energy for every kWh the project consumes.

native tree species representative of the habitat impacted for every one (1) tree removed; and c) the generation of one and one-half (1.5) kilowatt-hours of renewable energy for every kWh the project consumes.

- *Additional analysis is required by the Applicant and its agents to fully and meaningfully assess the cumulative environmental impacts from a catastrophic pipeline release - as occurred in Enbridge's Line 6B in Kalamazoo County, Michigan. This assessment should detail the likely environmental impacts and cumulative environmental impacts from the large-scale release of dilbit and any other crude oil type and/or petroleum products the pipeline may convey over its life time.*

- *If permitted in whole or in part, this project must not result in the discharge of sediments and associated nutrients to waterways. Best practices should be utilized and alternatives adequately assessed to maximally avoid water quality degradation, wetland impact, fish and wildlife habitat impairment, and T&E species and habitat degradation.*

- *Enbridge has not completed or not adequately completed wetland delineation surveys along the proposed pipeline route, and thereby has not fully assessed the wetland impact for the project. It is imperative that Enbridge fully disclose all proposed wetland impact so as not to "segment" the regulatory/permit review process, and to fully inform the public prior to final agency decision-making.*

- *Enbridge has not fully assessed the number and location of pipeline access roads. It is imperative that Enbridge fully disclose all proposed access roads for the project so as not to "segment" the regulatory/permit review process, and to fully inform the public prior to final agency decision-making.*

- *Proposed pipeline routes should be further and more carefully analyzed to maximally avoid wetlands, stream crossings, important cultural lands, and sensitive natural resources. Unavoidable wetland impacts should be adequately mitigated, and BMPs such as horizontal directional drilling (HDD) should be maximally utilized to avoid fish passage impacts and wildlife habitat fragmentation at unavoidable wetland and waterway crossings.*

- *Additional detailed alternatives analyses should be provided for proposed pipeline installation methods and the locations of all proposed significant wetland crossings. Such alternative analysis must be predicated upon a robust assessment of wetland avoidance, the minimization of unavoidable wetland impacts, and adequate wetland mitigation impact measures for permitted impacts.*[68]

- *Hazardous materials/fuels/lubricants, concrete coating operations, and stream flow diversion pumps should be secondarily-contained, and should not be stored or placed during pipe line construction within 100 feet of wetlands, waterways, waterbodies or groundwater wells.*[69]

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[68] *Ibid,* pp. 21-22, and *Wetland Ways: Interim Guidelines or Wetland Protection and Conservation in British Columbia*, Wetland Stewardship Partnership, March 2009, p. 7-7.

[69] *Wetland & Waterbody Construction & Mitigation Procedures*, Federal Energy Regulatory Commission, Office of Energy Projects, Washington, DC, May 2013, www.ferc.gov, p. 6.

- *Where meandering or multiple stream channels and headwaters exist, a pipeline should be rerouted or more carefully routed to minimize the number of water crossings.*[70]

- *Access road locations should be further and more carefully analyzed to maximally avoid wetlands, stream crossing and other sensitive natural resources, and unavoidable wetland impacts should be adequately mitigated, and BMPs such as free-span bridges without in-stream supports should be maximally utilized to avoid fish and other aquatic organism passage impacts and wildlife habitat fragmentation at unavoidable stream, creek and other waterway crossings.*

- *Maximally utilize free-span bridge structures without in-stream supports for equipment and pipeline crossings of large wetland areas, waterways and T&E species habitat.*[71]

- *Detailed, site-specific construction plans with proposed project timelines and scaled drawings should be provided identifying all major water crossings.*[72]

- *To minimize environmental and ecological impacts, proposed access road width should be maximally reduced to single-tracks and incorporate periodic small turn-out/pass-by locations to allow two-way traffic on single lane access roads.*

- *To further minimize environmental and ecological impacts, the proposed pipeline construction right-of-way width should be reduced to less than 75 feet.*[73]

- *Construction activities, if permitted, should be carefully timed at sensitive areas to minimize impacts on fish and wildlife, i.e., migration, breeding periods, etc.*

- *To minimize stream and wetland sedimentation construction activities near sensitive natural resources, especially first-order streams, headwater areas and near tributaries, should be suspending during periods of significant precipitation, i.e., more than a 25-year storm event.*

- *To minimize the introduction of invasive and exotic plant species, all construction equipment should be thoroughly cleaned prior to an after work in wetlands, near streams/creeks, and in any sensitive natural resource areas.*

- *All disturbed soil areas should be immediately stabilized following construction activities, using erosion*

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[70] *Ibid,* p. 10.

[71] *Ibid,* p. 12.

[72] *Ibid,* p. 16.

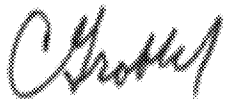
[73] *Ibid,* p. 22.

matting/fibre mats (as appropriate), an annual rye cover crop, and native plant species. Pre-construction native plant diversity, community, and structure, i.e., forb, shrub and tree layers, should be re-established following construction activities.

- *Finally, surface water quality and flow, and high quality diverse wetlands should be maintained, and siltation/ sedimentation maximally avoided at all proposed waterway and large wetland crossings through the maximal use the horizontal directional drilling method (HDD) for pipeline installation.*[74]

Thank you for the opportunity to provide these comments. If you have any questions please contact me at 231-499-7165 or cgrobbel@grobbelenvironmental.com.

Sincerely,
Grobbel Environmental & Planning Associates



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[74] *Access Pipeline Fact Sheet #9 - Water Crossings*, Access Pipeline, Northeast Expansion, www.accessexpansion.com, p. 1.

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M.S. Environmental Policy and Law / Hydrogeology - Michigan State University, Resource Development Department, College of Agriculture and Natural Resources, 1986, GPA 3.93.

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PROFESSIONAL EXPERIENCE

Principal/Senior Associate – Grobbel Environmental & Planning Associates, Traverse City, Michigan.

1998 to Present	Founder and president of the environmental consulting and land use planning firm, Grobbel Environmental & Planning Associates. Project experience includes watershed management and protection planning; community master planning, police power and zoning ordinance development; land use and environmental planning; ecological assessment; wetland determination, restoration and delineation; soil/groundwater investigation and remediation; risk assessment, management and communication; brownfield redevelopment; innovative stormwater treatment system design and construction; litigation support and expert witness; and all aspects of business development, media relations, financial management, marketing and administration.

Assistant/Adjunct Professor – Department of Community Sustainability/CARRS/Resource Development Department, College of Agriculture & Natural Resources, Michigan State University, Traverse City and East Lansing, Michigan.

1992 to 2017	Design and teaching of college undergraduate courses entitled: CSUS 425 Environmental Impact Assessment; CSUS 465 Environmental and Natural Resources Law; CSUS 200 Introduction to Sustainability; CSUS 320 Environmental Planning and Management; ESA 225 Land and Environmental Issues in Law; RD 336 State Environmental Law; RD 491 Environmental Ethics; and RD 430 Natural Resources Law. Director of MSU undergraduate environmental studies program at the University Center in Traverse City, Michigan

Land Use Programs Consultant – Tip of the Mitt Watershed Council, Petoskey/Traverse City, Michigan.

2002 - 2004	Land use programs consultant undertaking master planning, zoning ordinance audit and development, site conservation design/development, site plan review, and land use training and education programs. Duties also include environmental planning; ecological assessment; soil and groundwater investigation; wetland determination, assessment, delineation and restoration; risk assessment, management and communication; brownfield redevelopment; litigation support and expert witness; and all aspects of technical services development, marketing and administration.

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1999 - 2003 Developer, co-author and coordinator of MSUE's award winning Citizen Planner statewide land use training program in Michigan. Design and teaching of college credit and adult learner non-credit courses in land use planning and law, environmental law and policy, community development, wetlands and watershed management, *etc.* Member of Leelanau County Agricultural Alliance, Antrim-Grand Traverse County farmland preservation task force involved in undertaking surveys and geographic information system mapping toward county administered farmland preservation programs.

Director of Education and Land Stewardship – Leelanau Conservancy, Leland, Michigan.

1998 - 1999 Design and delivery of land use, conservation and environmental education programs for school children, landowners, professionals and local and regional units of government. Implementation of the Leelanau Geography Project, including the training of middle school teachers from ten (10) area public and private schools. Communication and outreach to visual, print, audio and electronic media. Design and implementation of web pages for Leelanau Conservancy and regional environmental education consortium. Writing and administration of numerous grants.

Co-owner/Senior Project Manager - Compliance, Inc. Environmental Engineering, Traverse City and Detroit, Michigan.

1996 - 1998 Founder of Southwest Detroit office for Compliance, Inc. Regulatory specialist and senior project manager for the investigation and remediation of sites of environmental contamination, brownfield redevelopment, air permitting, emergency response, expert witness and leaking underground storage tank programs. Recipient of Kresge Foundation brownfield redevelopment project grant, and board member for Cluster 5 (Southwest Detroit) of Detroit's Community Reinvestment Strategy initiative.

Regulatory Specialist/Project Manager - Environmental Solutions, Inc., Traverse City, Michigan.

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Environmental Enforcement Specialist - Michigan Department of Environmental Quality, Environmental Response Division, Lansing, Michigan.

1991 - 1992 Liaison to the Department of the Attorney General in the enforcement and litigation of state environmental regulations.

Environmental Quality Analyst - Michigan Department of Environmental Quality, Environmental Response Division, Gaylord, Michigan.

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1987 - 1988 Worked in the development of agro-forestry systems, soil conservation and environmental education projects in Guayas Province, Ecuador.

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Presenter of "**Environmental Issues with Hydraulic Fracturing: Unconventional Natural Gas Development of Collingwood Shale**" numerous conferences and presentations through-out Michigan, 2010 – 2014.

Panelist: "**Risks of Hydraulic Fracturing: Unconventional Natural Gas Development of Collingwood Shale**," Michigan State University Extension, Traverse City, Michigan, June 24, 2010.

Instructor of **"Planning and Zoning Essentials"** Michigan Association of Planning, February 25, 2010, Perry Davis Hotel, Petoskey, Michigan.

Presenter of **"Role of Local Government in Protecting Wetlands"** at the Planning Michigan Conference, Michigan Association of Planning's 2009 Planning Conference, October 2, 2009, Mt. Pleasant, Michigan.

Presenter of **"Role of Local Government in Michigan Wetland Regulation"** at the Michigan Wetlands: Celebrating the 25th Anniversary of the Wetland Protection Act Conference, Michigan Department of Environmental Quality, Michigan Department of Natural Resources, Northwestern Michigan College, Water Studies Institute, and U.S. Environmental Protection Agency, May 20-22, Traverse City Michigan.

Presenter of **"Groundwater Disputes: Case Studies and Solutions"** at the 10th Annual Michigan Environmental Health Professionals Conference, October 12-15, 2003, Shanty Creek, Bellaire, Michigan.

Presenter of **"Water Quality Protection Tools for Local Government,"** Kellogg Foundation/People and Land Project, September 30, 2003, Inland Lakes Education Center, Indian River, Michigan.

Presenter of **"Water Quality Protection Tools for Local Government,"** Kellogg Foundation/People and Land Project, August 22, 2003, Grand Traverse Bay Watershed Conference, Holiday Inn, Traverse City, Michigan.

Presenter of **"Farmland Preservation Tools and Techniques and Landowner Options"** at the 52nd Annual Benzie-Manistee Horticultural Show, March 18-20, 2003, Crystal Mountain, Thompsonville, Michigan.

Presenter **"Development Rights"** for HARBOR, Inc. at the Little Traverse Township Hall, Emmet County, Michigan, April 22, 2003.

CHRISTOPHER P. GROBBEL

Presenter **"Riparian Rights"** for HARBOR, Inc. at the Little Traverse Township Hall, Emmet County, Michigan, March 25, 2003.

Panelist **"The Legalities of Land Use"** for MSU Extension/HARBOR, Inc. at the Little Traverse Township Hall, Emmet County, Michigan, December 10, 2002.

Presenter **"Planning and Zoning - How to Stay Out of Court"** at the Annual Michigan Society of Planning Conference, Community, Culture, Change: Planning Michigan, Kalamazoo, October 2 through 5, 2002.

Presenter of **"Michigan's Environmental Regulatory Legacy"** at the 2001 Kickoff: Michigan Groundwater Stewardship Program, Michigan Department of Agriculture, Michigania, Boyne City, Michigan, October 25, 2000.

Presenter of **"Hydrogeology, Contaminant Monitoring, Fate and Transport, and Contaminant Remediation"** at the Chemical Applications: Pesticide/Fertilizer Application Workshop, Michigan State University, East Lansing, Michigan, March 30 – 31, 2000.

Presenter at the 2000 Envirothon, **"Renewable Energy: Taking Another Look"**, Northwest Michigan Horticulture Research Station, Michigan State University Extension, February 18, 2000.

Co-presenter **"Land Use Conflict: When City and Country Clash"**, A project of the National Public Policy Education Committee in Cooperation with the Farm Foundation, Northwest Michigan Orchard Show, Grand Traverse Resort, Acme, Michigan, January 25, 2000.

Panelist **"Building Consensus in Land Use and Growth"**, Council of Michigan Foundations annual conference, Grand Traverse Resort, Acme, Michigan, October 4, 2000.
Panelist at **"A Community Forum of Brownfield Redevelopment along Boardman Lake"**, Traverse City, Michigan, October 13 and 27, 1998.

Panelist on **"Impact of the Michigan Environmental Response Act"** at the Michigan Department of Treasury's 8th Annual Directions in Public Finance Conference at the Grand Traverse Resort, Acme Michigan on June 2, 1995.

Presented an **Environmental Regulatory Update: Issues Related to Commercial Lender Liability** for Old Kent Bank, March 11, 1994 and June 7, 1995.

Presented Guidelines for the **Purchasing, Handling and Disposal of Hazardous Materials** with Benson, McCurdy & Wotila, P.C. for Northern Michigan Purchasing Agents in Kalkaska, Michigan on March 9, 1994.

Presenter - **An Overview of Michigan Environmental Response Act and Other Environmental Regulations** for Grand Traverse Area Certified Public Accounts and Attorneys at the Grand Traverse Resort, Traverse City, December 10, 1991.

Guest Lecturer in **Wetland Law** – Detroit College of Law, Michigan State University, East Lansing, Michigan, Spring 2002.

Guest Lecturer in **Environmental Justice Studies** – University of Michigan, School of Natural Resources, Ann Arbor, Michigan, Spring 1998.

Guest Lecturer in **Environmental Justice and the Law** – Cooley Law School, Lansing, Michigan, Fall 1997.

Guest Lecturer in **Environmental Studies** – Western Michigan University, Kalamazoo, Michigan, 1994 through 1999.

FURTHER EDUCATION

Training – **Understanding the Depth of Deep Well Injection,** North Central Michigan College, Petoskey, Michigan, May 20, 2010.

Training – **Design for Rain Gardens: Stormwater and Runoff Control**, North Carolina State University and Tetra Tech, April 16, 2009.

Training – **Wetland Plant Identification**, Wetland Training Institute, Dr. Mollenberg, Lansing, Michigan, May 21-24, 2002.

Training - **Planning Hydrology for Constructed Wetlands**, Wetland Training Institute, Dr. Gary Pierce, Pierce Cedar Creek Institute, Hastings, Michigan, July 9 - 13, 2001.

Training - **U.S. Army Corps of Engineers Wetland Delineation and Management Training**, Richard Chinn Environmental Training, Inc., Chicago, Illinois, October 9 - 13, 2000.

Training – **Special Wetland Area Management Project,** Geographic Information System Wetland Data Northwest Michigan Council of Governments, Traverse City, Michigan, August 31, 2000.

Training – **Web Site Design Course,** Michigan State University Extension, University Center, Traverse City, Michigan May 4, 2000.

Training - **American Institute of Certified Planners (AICP)** Comprehensive Exam Preparatory Course, February through April 17, 2000.

Training - **Computer Technologies and Groundwater Resource Data Management**, U.S. EPA, Atlanta, Georgia, August 1986.

Seminar - **Hazardous Waste Management under the Resource Conservation and Recovery Act**, Waste Management Division of the Michigan Department of Natural Resources, February 1989.

Training - **Soil and Groundwater Sampling and Analysis** - Michigan Department of Natural Resources, April 1989.

Training - **Innovative Remedial Action Technologies**, Environmental Response Division, Michigan Department of Natural Resources, 1989.

CHRISTOPHER P. GROBBEL

Seminar - **Underground Storage Tank Management**, Department of Engineering Professional Development, University of Wisconsin, 1989.

Training - **Amendments to the Michigan Environmental Response Act, 1988 P.A. 307**, Michigan Department of Natural Resources, 1990.

Seminar - **Leak Detection and Corrective Action for Underground Storage Tanks**, Department of Engineering Professional Development, University of Wisconsin, 1990.

Seminar - **Groundwater Flow and Well Hydraulics**, Department of Engineering Professional Development, University of Wisconsin, 1991.

Cleaning The Air in West Michigan #4: Recognizing and Dealing with Non-compliance, Varnum, Riddering, Schmidt and Howlett, and Grand Valley State University - Water Resources Institute, Grand Rapids, Michigan, September 1994.

ASTM - Environmental Site Assessment Up-date, Chicago, Illinois, August 1994.

Seminar - **IBM PC Applications in Groundwater Pollution and Hydrology,** Groundwater Modeling and Computer Technologies for Groundwater Quality Management - National Ground Water Association, Boston, Massachusetts, August 1994.

Workshop - **Waste Minimization and Energy Efficiency Workshop** - American Automobile Manufacturers Association, Michigan Departments of Commerce and Natural Resources and the U.S. EPA, Detroit, Michigan, December 1994.

Seminar - **Clean Air Act Amendments, Sec. 112(R) - Process Safety Management and Risk Management Compliance**, Michigan Association of Environmental Professionals Howell, Michigan, December 1994.

Workshop - **Waste Minimization and Energy Efficiency Workshop** - Michigan Departments of Commerce and Natural Resources, Traverse City, Michigan, May 1995.

Training - **Risk-Based Corrective Action (RBCA) Applied at Petroleum Sites (ASTM E38-94),** ASTM by Foster Wheeler Environmental Corporation, Bellevue, Washington, July 14-15, 1995.

Conference – **Restructuring Rural Society and Rural Sociology**, Environmental Justice, 58th Annual Meeting, Rural Sociological Society, Ritz-Carlton Hotel, Pentagon City, Virginia, August 17-20, 1995.

Conference – **Michigan Chapter of the American Planning Association and the Michigan Society of Planning Officials**, 4th Annual Joint Conference, "Planning Michigan For the People, By the People", Amway Grand Plaza, Grand Rapids, Michigan, September 22-25, 1999.

Seminar - **Innovative Septic Technologies**, Michigan State University Engineering Department, Michigan State University Extension and Northwest Michigan Council of Governments, Traverse City Library, Traverse City, Michigan, August 25, 2000.

CHRISTOPHER P. GROBBEL

Academic Achievement:

Phi Theta Kappa National Honor Society
Golden Key National Honor Society
Alpha Zeta Agriculture and Natural Resources Honor Society
Numerous MSU scholarships and assistantships – 3/84 through 3/86.
MSU graduate student fellowship – 9/92 through 8/98.

Professional Certifications:

OSHA 40-Hour Site Safety Training
OSHA 8-Hour Site Safety Training
OSHA Hazardous Waste Site Supervisory Safety Training

Qualified Underground Storage Tank Professional #190, State of Michigan, Department of Environmental Quality.
Michigan Association of Planning, certified instructor.

Professional Associations:

Michigan Association of Environmental Professionals, member.
National Association of Environmental Professionals, member.
National Ground Water Association, member.
Society of Wetland Scientists, member.
Michigan Association Planning, certified instructor and former education committee member.
American Planning Association, member.